Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC

In the matter of:	)	
	)	
Review of Media Regulations	)	MB Docket 17-105
	)	
	)	

SUMMARY

In these *Comments*, REC Networks ("REC") is addressing the Commission's inquiries about media rules that may be burdensome and outdated. Based on our analysis on application activity including during the 2013 LPFM filing window as well as comments from those communicating directly and indirectly with REC, we are addressing many very outdated rules. Some rules have not been significantly changed since before the first Low-Power FM (LPFM) station came on the air. REC is submitting this as a first part of restructuring the LPFM service rules by addressing various existing service rules and how they can be improved for the 2017 environment.

The crown jewel of these comments is to reduce the very unnecessary and extremely burdensome 20 kilometer "buffer-zone" that is added to the standard service contour of full-service FM stations. We achieve this through the use of portions of the former LP10 distance separation chart and use those minimum values instead of the current LP100 charts in order to expand LPFM opportunities and bringing LPFM to a more level playing field with FM translators. The Local Community Radio Act (LCRA) prohibits the Commission from reducing minimum spacing to values less than those that were codified at the time the Act was enacted. Since LP10 was still codified at the time when the LCRA was signed by the President, the Commission has authority to reduce distance separations to those values. To further protect full-service FM stations, we propose to add an additional safety catch which prevents LPFM proposals from placing an interfering contour inside the protected contour of a full-service FM station. This is a very rare occurrence using the LP100 tables but can slightly increase with the LP10 tables. Under the REC proposal LPFM stations will still be "buffered" between 7 to 13

kilometers from full-service FM stations on co-channel. A comprehensive list of channel available both current and proposed using the LP10 table can be found in Appendix B of this filing. This extensive study clearly shows the increased opportunities and options for LPFM stations, especially those facing displacement. Of course, some of those opportunities may not be available after the Auction 99 cross-service FM translator window but we do feel that even after the window, there will still be opportunities.

REC also addresses the restrictive, burdensome and outdated LPFM rules which were designed from a desire in 2000 to keep the LPFM application process simplified and without the need of consultants and advanced computer programs (which are more available in this day and age). REC points out that in the 2013 LPFM filing window, over 50 percent of the granted original construction permit applications were filed by 20 different people. REC also makes a showing that since the enactment of the LCRA, the Commission must continue to require protections to FM translators but they are no longer required to use distance separation tables. Our proposed rules keep minimum distance separations towards FM translators, other LPFM stations and TV channel 6 stations for those who want to keep it simple, but also offers an option for applicants to use contour overlap instead of distance separation towards those stations. With the opportunities to use contour overlap, we are also proposing to expand the use of directional antennas (including composite patterns) to LPFM stations wishing to use a contour model. Also utilizing directional antennas, we are proposing to expand options for stations within the 125 km "strip zone" along the Mexican border.

REC also proposes changes to remove some burdensome technical rules regarding the location and configuration of co-owned FM translators while maintaining the hyperlocal nature of the service; set a path for LPFM stations and cross-service FM translators to operate boosters in terrain challenged areas within their existing service contours; expand the area which an LPFM station can move as a minor change to match FM translators; expand the LPFM construction period to 36 months without the need for an extension request and remove some outdated interference protection language that no longer applies to LPFM.

REC also addresses some of the vintage LPFM administrative rules that are long overdue for a change. REC proposes the ability to "save" unbuilt construction permits by allowing permits to be transferred to equally or higher qualified organizations after 18 months of the original organization trying to build the station. We propose to eliminate the 3-year holding period to allow LPFM stations where the original licensee made the investment to build the station to be able to assign the license to an equally or higher qualified organization. We have proposed additional accountability measures to assure that the assignments of LPFM permits and licenses remain as non-profit transactions. REC asks the Commission to look again at the LCRA's language in regards to third-adjacent channel stations to address the very awkward periodic announcements required to address stations more than 60 miles away. REC also addresses the continued need for distinctive call signs for LPFM stations and address the issue with the continued requirement of using lab certified transmitters and the Commission's lack of enforcement of the sale of pirate transmitters on Amazon.com and other major retailers.

REC feels that these rules are burdensome, outdated and have denied many opportunities to LPFM stations, especially those that are receiving real-world interference from the concentration and eventual expansion of supposedly "equal in status" FM translators, which from a rules standpoint, FM translators have a major advantage. Laws passed by Congress cannot bring LPFM on an equal playing field with translators but we feel these rule changes will bring us much closer. REC hopes the Commission gives all of these proposed changes to the rules full consideration and work together to improve LPFM in time for another filing window following the completion of the cross-service FM translator filing window.

Respectfully submitted,

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June 26, 2017

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COMMENTS OF REC NETWORKS

I. INTRODUCTION

1. REC Networks [1] ("REC") strives to assure a citizen's right to access the airwaves and strongly advocates for the Low Power FM ("LPFM") broadcast service. For the past few years, REC has been a primary voice supporting the establishment and day-to-day operation of LPFM stations. In the above captioned proceeding, the Commission is seeking comment on which media rules should be modified or eliminated as unnecessary or burdensome.[2] In these *Comments*, REC will touch on the various issues that impact LPFM and smaller commercial and non-commercial broadcasters that we feel may warrant consideration in this proceeding.

II. LEGISLATIVE HISTORY OF LPFM

A. Radio Broadcast Preservation Act

2. When LPFM was first created by the Commission, it was created without a requirement that LPFM stations protect other broadcast facilities on third-adjacent channels.[3] This was a concept unheard-of at the time and interests representing full-service broadcasters expressed deep concern about the possibility of interference by the new LPFM stations.[4] There was also a very deep resentment of the new LPFM service because of the surge in radio piracy that took place in the late 1990s following the passage of the Telecommunications Act of 1996 which created unlimited national ownership which allowed companies such as iHeart Media

[1] - REC Networks is the unincorporated entity name that identifies Michelle Bradley. REC is a major advocate of the LPFM service and operates various resources such as myLPFM (http://mylpfm.com).

[2] - See *Commission Launches Modernization of Media Regulation Initiative.* Public Notice. 32 FCC Rcd 4406 ("PN") at 1.

[3] - See *Creation of a Low Power Radio Service,* Report and Order, 15 FCC Rcd 2205 (2000, "R&O") at 104.

[4] - See R&O at 78-80.

(then Clear Channel) to thrive, shutting out local and regional ownership opportunities. As a result, the *Radio Broadcast Preservation Act* ("RBPA") was added to the *2001 DC Appropriations Act*[5] which was enacted on December 21, 2000.[6]

3. *Section 632(a)(1)(A)* – This section of the RBPA would require the Commission to prescribe minimum distance separations for third-adjacent channels as well as co-channel, first-adjacent and second-adjacent channels. *(emphasis added)* This subsection of the law has been interpreted by the Commission that LPFM must use distance separation between LPFM and other facilities including full-service, FM translators and FM boosters as opposed to using the contour overlap model that used in the FM translator and full-service reserved band non-commercial FM service.[7]

4. *Section 632(a)(1)(B)* – This section prohibited any applicant from obtaining a low-power FM license if the applicant has engaged in any manner in the unlicensed operation of any station in violation of Section 301 of the Communications Act.[8] In 2002, this section was originally overturned in *Ruggiero vs. FCC*[9], a decision that would eventually be vacated in 2003.[10]

5. *Other sections* – Other sections of the RBPA invalidated all licenses that did not meet the third-adjacent channel minimum distance separations[11] and ordered the Commission to conduct an "experimental program to test whether low power FM radio stations will result in

[5] - Pub L. No. 106-553, §632, 114 Stat. 2762, 2762-A-111 (2000). ("RBPA")

[6] - See also *Creation of a Low Power Radio Service,* Second Report and Order, 16 FCC Rcd 8026 (2001, "2nd R&O")

[7] - See *Creation of A Low Power Radio Service,* Second Order on Reconsideration, 20 FCC Rcd 6763 (2005, "Second Recon") at 34.

[8] - See 47 U.S.C. §301.

[9] - *Ruggiero v. Federal Communications Commission,* 278 F. 3d 1323 (D.C. Cir. Feb 28, 2002)21.

[10] - *Ruggiero, Greg v. FCC,* 317 F 3d 239 (D.C. Cir. 2003).

[11] - RBPA at (a)(3).

harmful interference to existing FM stations if such stations are not subject to the minimum distance separations for third-adjacent channels".[12] The latter would lead to the MITRE study which demonstrated that LPFM stations would not cause considerable interference to LPFM stations.[13]

B. Local Community Radio Act

6. After a favorable outcome in the MITRE Report, legislation was attempted in 2005, 2007 and 2009 to pass the Local Community Radio Act. Finally in 2010, the Act was passed and became Public Law on January 4, 2011 as the *Local Community Radio Act of 2010* ("LCRA").[14] We will place emphasis on phrases within the paragraphs within the section to denote issues that we will be discussing in this pleading.

1. Section 2: Amendment of the RBPA

7. Section 2 of the LCRA amends Section 632 of the Departments of Commerce, Justice, the State, the Judiciary, and Related Agencies Appropriations Act to require the Commission to "prescribe protection *(emphasis added)* for co-channels and first- and second-adjacent channels and to prohibit any applicant from obtaining a low-power FM license if the applicant has engaged in any manner in the unlicensed operation of a station in violation of §301 of the Communications Act (47 USC §301).[15] Section 2 also upholds the dismissal and cancellation of LPFM applications and permits that did not meet third-adjacent channel minimum spacing in accordance with the *Second Report and Order.*[16]

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[12] - RBPA at (b).

[13] - See *Federal Communications Commission, Comment Sought on the MITRE Corporation's Technical Report, Experimental measurements of the Third-Adjacent Channel Impacts of Low-Power FM Stations,* Public Notice, 18 FCC Rcd 14445 (2003).

[14] - Pub. L. No. 111-371, 124 Stat 4072 (2011).

[15] - LCRA at 2(a).

[16] - See 2nd R&O.

2. Section 3: Minimum distance separations

8. Section 3(a) of the LCRA calls for the Commission to eliminate the third-adjacent channel minimum distance separation requirements between low-power FM stations and "full-service FM stations", FM translator stations and FM booster stations.[17]

9. Section 3(b)(1) states that the Commission cannot amend its rules to reduce the minimum co-channel and first- and second- adjacent channel distance separation requirements in effect on the date of enactment of this Act *(emphasis added)* between low-power FM stations and "full-service FM stations".

10. Section 3(b)(2) allowed for the Commission to use a waiver process in order to allow stations that would otherwise not meet the minimum distance separations for second adjacent channel stations if the applicant can make a showing that the proposed facility will not cause any interference to any second-adjacent channel radio service.[18] This section further outlines a process for the handling of any second-adjacent channel interference should a complaint arise.

3. Section 4: Radio reading services

11. Section 4 of the LCRA simply states that despite the elimination of the third-adjacent channel protections, those protections will still apply to full-service FM facilities operating on a third-adjacent channel that use a subsidiary communications authority (SCA) to carry a radio reading service for the blind and visually impaired.[19]

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[17] - See *Creation of A Low Power Radio Service,* Fifth Report and Order, 27 FCC Rcd 3315 (2012, "5th R&O) at 11.

[18] - See *Creation of A Low Power Radio Service,* Sixth Report and Order, 27 FCC Rcd 15402 (2012, "6th R&O") at 72-79.

[19] - See 5th R&O at 12. We also note that in the *Reconsideration Order* (15 FCC Rcd 19208) at Appendix D, the Commission had published a list of "Existing Stations with Radio Reading Services". This list is the one that is recognized by REC as the stations eligible for third-adjacent channel protections. Over the years, we have witnessed application activity where the applicant has made a showing that the subject

4. Section 5: Ensuring spectrum availability

12. Section 5 of the LCRA states that the Commission needs to assure that licenses are available for FM translator stations, FM booster stations and LPFM stations; decisions for licensing new stations are based on the needs of the local community and that FM translator stations, FM boosters and LPFM stations remain equal in status with each other and remain secondary to existing and modified full-service FM stations.

5. Section 6: Translator input signals

13. Section 6 of the LCRA states that the Commission develop rules regarding interference to the inputs of FM translators where the translator's input channel is +/- 3 channels (600 kHz) from the channel of the proposed LPFM station.[20]

6. Section 7: Third adjacent channels

14. Section 7 of the LCRA has extensive language regarding the remediation of interference on third adjacent channels.[21] This includes:

- (1) With respect to LPFM stations licensed at locations that do not meet third-adjacent channel spacing requirements, interference complaints will be handled consistent with translator rules (§74.1203);

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third-adjacent channel station no longer carries the reading service. In addition, there may be new stations carrying reading services that may be eligible for protection on future applications. REC feels that it would be in the public interest that a new list of stations is published in order to assure that stations carrying reading services are properly protected and that those are not can be reported as such in order to make third-adjacent channels potentially available for LPFM stations.

[20] - See 5th R&O at 42~46.

[21] - See 6th R&O at 86-120.

- (2) For a period of one year, LPFM stations constructed on a third-adjacent channel shall be required to broadcast periodic announcements;
- (3) LPFM stations on third-adjacent channels shall be required to address interference within the protected contour of the affected station within 7 days of receiving the complaint;
- (4) LPFM stations on third-adjacent channels shall be given flexibility to remediate interference through co-location with the third-adjacent channel station;
- (5) The Commission shall accept the submission of informal evidence of interference, accept complaints from stations at any distance and accept complaints of interference to mobile reception; and
- (6) Apply the translator (§74.1203) interference protection from LPFM stations to full-service FM stations located in the state of New Jersey.[22] *(emphasis added)*

C. Interpretation of the LCRA

15. Like with any legislation, the LCRA is subject to interpretation, especially considering that the law did not make true definitions to some terminology. In order to address improvements to the rules regarding LPFM, we need to interpret the law to determine definitions of certain terms that are not specifically defined in the law as well as not being defined directly in regulations and to apply those definitions towards new policy opportunities within the confines of the LCRA.

1. LCRA's amendment to the *2001 DC Appropriations Act*

16. Section 2 of the LCRA made an amendment to the *2001 DC Appropriations Act* in section 632(a)(1) where in the original language (from the RBPA) it required the Commission to modify the rules to:

[22] - Id. at 120~123.

> Prescribe minimum distance separations for third-adjacent channels (as well as for co-channels and first- and second-adjacent channels.[23]

The enactment of the LCRA amends section 632(a)(1) to read:

> Prescribe protection for co-channels and first- and second-adjacent channels.[24]

17. The LCRA would then discuss minimum distance separation requirements in Section 3(b)(1) where it states:

> In General- The Federal Communications Commission shall not amend its rules to reduce the minimum co-channel and first- and second-adjacent channel distance separation requirements in effect on the date of enactment of this Act between—
>
> (A) low-power FM stations; and
>
> (B) full-service FM stations.[25]

18. The RBPA specifically *prescribed minimum distance* separations.[26] This language can be interpreted that the only choice the Commission had was to use distance separation.[27] The RBPA language also did not specify which facilities were getting this protection. It could be assumed that it would include full-service, FM translators and FM boosters.

19. The LCRA modified the language in §632(a)(1) from *"prescribe minimum distance separations"* to *"prescribe protection"*.[28] The LCRA then clarified that the

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[23] - RBPA at §632(a)(1)(A).

[24] - LCRA at §2.

[25] - LCRA at §3(b)(1).

[26] - RBPA at §632(a)(1)(A).

[27] - See 2nd Recon at 34.

[28] - LCRA at §2 (amending *2001 DC Appropriations Act* §632(a)(1)).

Commission was not to amend its rules to reduce distance separation between low-power FM stations and "full-service FM stations".[29] Further, the LCRA notes that the minimum distances were those "in effect on the date of the enactment of [the LCRA]".[30] The LCRA became Public Law on January 4, 2011. At that time, §73.807 contained distance separation tables for both LP100 and LP10 services. The LP10 tables would not be removed from the rules until the *Sixth R&O*.[31] Therefore, for all intents and purposes, the LCRA does consider the LP10 table as being "in effect on the date of the enactment" and therefore it can be considered in rulemaking without conflicting with statute. In addition, the Commission has already acknowledged that the LCRA does not contain any language that would limit the power levels at which LPFM stations may be licensed.[32]

2. Definition of a "full-service FM" broadcast station

20. One distinction between the LCRA and the RBPA is the use of the term "full-service FM". While "full-service FM" is not specifically defined in the LCRA, we need to consider what facilities would be considered, in the eye of the LCRA, a "full-service FM" facility. In Section 3(a), the law calls for the Commission to modify the rules to eliminate third-adjacent minimum distance separation between low-power FM stations and full-service FM stations, FM translator stations and FM booster stations.[33] In Section 3(b), the LCRA mandates that the Commission does not reduce the minimum distance separation requirements in effect on the date of the enactment of the LCRA between low-power FM stations and full-service FM stations.[34] Further, in section 5, the LCRA states that licenses are available to FM translator

[29] - LCRA at §3(b)(1).

[30] - Id.

[31] - 6th R&O at 201-204.

[32] - 6th R&O at 206.

[33] - LCRA at §3(a).

[34] - LCRA at §3(b).

stations, FM booster stations, and low-power FM stations[35] and that FM translator stations, FM booster stations and low-power FM stations remain equal in status and secondary to existing and modified full-service FM stations.[36] Based on the application of the LCRA's usage of the term "full-service FM" and the distinctions made between "full-service FM" and "FM translator" and "FM booster" stations, the LCRA can be interpreted that "full-service FM" consists of domestic full-power facilities (e.g. classes A, C3, C2, C1, C0, C, B and B1). It can also be defined to include Class-D (secondary) noncommercial educational FM stations as these stations are not FM translators, boosters or LPFM stations. The term "full-service FM" does not include FM translators, FM booster or other LPFM stations.[37]

3. Protection to "full-service FM" and other facilities

21. Now that we have defined a "full-service FM" broadcast station, we need to look at what protections are statutorily required for each radio service under the LCRA. LCRA Section 3(b)(1) states that the FCC shall not amend the rules to reduce the minimum distance separation requirements low-power FM stations and full-service FM stations.[38] This means that no matter what, full-service FM stations, as we defined as full-power FM stations and Class D noncommercial educational stations are subject to a minimum distance separation requirement.

22. FM translators, FM boosters and low-power FM stations are not considered full-service FM stations. Since Section 3(b)(1) only applies to full-service FM stations and the blanket language in Section 2 removed the phrase "minimum distance separations", it can be interpreted that since the enactment of the LCRA, we are no longer under a statutory requirement

[35] - LCRA at §5(1).

[36] - LCRA at §5(3).

[37] - The term "full service" in reference to a full-power FM broadcast station is used in 47 C.F.R. §73.809(a) in respect to interference protection to subsequently authorized FM broadcast stations. ("If a full service commercial or NCE FM facility application is filed subsequent to the filing of of an LPFM station facility application, such full service station is protected against any condition of interference...") This term "full service" was amended to this rule in the *Third Report and Order* (22 FCC Rcd 21912).

[38] - LCRA §3(b)(1).

to provide minimum distance separation to FM translator and FM booster stations, however under the surviving language in Section 2, the Commission must "prescribe protection" for co-channels, first- and second adjacent channels but it does not specify distance separation.[39] This opens the door for the Commission to consider the elimination of the minimum distance separation between LPFM stations and FM translators and replace it with a contour overlap model.[40] Likewise, there is no statutory language to require that LPFM stations and channel 6 TV stations (including LPTV and class-A) be protected by minimum distance separation.[41]

4. Third adjacent channel language in the 2009 and 2010 LCRAs

23. When the 2009 version of the LCRA was written, it included what was Sections 7(2), 7(3), 7(4) and 7(5) of the enacted 2010 version of the LCRA.[42] In the language used throughout 2009, the term "on a third-adjacent channel" was used in regards to periodic announcements, complaint collection, interference remediation through co-location and acceptance of informal evidence of interference. When the 2010 language was added, and eventually passed, only the new paragraph (7(1)) was given different terminology, "that do not satisfy third-adjacent channel spacing requirements".[43] As a result, the Commission interpreted Section 7 as applying to two different types of LPFM stations, those that had a third-adjacent channel short spacing (§7(1)) and "other LPFM stations".[44]

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[39] - *2001 DC Appropriations Act* at §632(a)(1).

[40] - FM boosters are required to maintain their protected service contours entirely within the protected service contour of their primary station. Therefore, if an LPFM station is protecting a full-service contour to its protected contour, it is also protecting the booster in the same manner.

[41] - LPFM protections to TV channel 6 stations are defined in 47 C.F.R. §73.825.

[42] - *Local Community Radio Act of 2009,* H.R. 1147, 111th Cong. (2009) ("LCRA 2009") as reported in House (December 14, 2009) at §8.

[43] - LCRA §7(1).

[44] - 6th R&O at 96-120.

III. LOW POWER FM

A. §73.807 minimum distance separations

1. Protections to full-service FM stations

24. *Recognition of "full-service FM" stations* – Based on our proposed interpretation of the language of the *DC Appropriations Act* as amended by the LCRA, the language in Section 3(b)(1) of the LCRA and our interpretation of the definition of a "full-service FM" broadcast facility based on the usage of the phrase throughout the LCRA, REC interprets the LCRA as stating that LPFM stations must utilize minimum distance separation between LPFM stations and full-power commercial and non-commercial (Class A, B, B1, C, C0, C1, C2 and C3) stations as well as between LPFM stations and Class D (secondary) non-commercial educational FM stations.

25. *The "LP10" distance charts were codified at the time LCRA became law* – REC also recognizes that the LCRA specifically states that the Commission shall not amend the minimum co-channel, and first- and second-adjacent channel separation requirements in effect on the date of enactment of [the LCRA] between low-power FM stations and full-power FM stations.[45] REC also recognizes that the enactment date of the LCRA was on January 4, 2011 and that on that date, the Commission had codified what is now former §73.807(b) of the Commission's Rules, which defined minimum distance separation requirements between LP10 stations and full-service facilities.[46] In the *Fourth NPRM* when proposing a new LP250 class of service, the Commission recognized that the 20 kilometer "buffer zone" established in the *R&O* "provides more protection than the [power] increase".[47] Finally, in the *Sixth R&O*, the Commission recognized that "the LCRA does not any language limiting the power levels at

[45] - LCRA §3(b)(1).

[46] - MO&O at Appendix A; modification to §73.807(b).

[47] - 4th NPRM at Footnote 125.

which LPFM stations may be licensed."[48] Also in the *Sixth R&O*, in 2012, the Commission repealed the former §73.807(b), which removed the LP10 tables from federal regulations.[49]

26. *The Commission has jurisdiction to reduce LPFM separations to "LP10" levels* – Based on our interpretations of the LCRA and past Commission statements in regards to the "buffer zone", the Commission's recognition that the LCRA does not contain language regarding operating power, the fact that the "LP10" distance separation tables were still codified on January 4, 2011 which was date of the enactment of the LCRA, the burden towards LPFM stations faced with displacement from encroaching stations to select channels that would otherwise be available to FM translators operating equivalent or superior facilities and in order to prepare for a growth of more original local community services in a future LPFM filing window which community need is being expressed for, REC is proposing that the Commission amend the rules to reduce the minimum distance separations of LPFM stations towards full-service FM stations on co-channel and first-adjacent channels to the minimum distance separations of the former §73.807(b), which was in effect on the date of the enactment of the LCRA.[50]

27. *Protections for co-channel full-service FM stations* –REC proposes that the Commission use the distance separation tables under §73.807(b)(1) as published in the *Code of Federal Regulations* ("CFR"), October 1, 2010 edition, the last issue that was published prior to the enactment of the LCRA.[51] Using that table, LPFM stations will continue to over-protect full service stations through a buffer zone ranging from 7 to 12 kilometers based on full-service FM

[48] - 6th R&O at 206.

[49] - 6th R&O at 202.

[50] - Minimum distance separations between LPFM stations and full-service FM stations on second-adjacent channels (and for radio reading services, on third-adjacent channels) will remain at their current distances due to the fact that the Commission did not include a "buffer zone" with second and third-adjacent channel minimum separation. The minimum separation in these cases is computed by adding the interfering contour of the LPFM station with the protected service contour of the full-service FM facility. In addition, while we consider Class-D stations as eligible under statute for minimum distance separation, the Commission did not include a "buffer zone" in respect to Class-D stations. Therefore, we will not propose any reductions in distance between LPFM stations and Class-D FM stations.

[51] - 47 C.F.R. §73.807(b)(1) (2001).

station class. Our proposed minimum distance separations for co-channel stations are shown in the following table:

	Current minimum separations					Proposed minimum separations				
Class	FS service contour	LP interf. contour	Buffer Zone	Total Min. Req'd.	Codified	FS service contour	LP interf. contour	Buffer Zone	Total Min. Req'd.	Codified
A	28.30	18.58	20.00	66.87	67	28.30	18.58	12.13	59.00	**59**
C3	39.08	18.58	20.00	77.66	78	39.08	18.58	11.34	69.00	**69**
B1	44.74	22.41	20.00	87.14	87	44.74	22.41	9.86	77.00	**77**
C2	52.20	18.58	20.00	90.77	91	52.20	18.58	11.23	82.00	**82**
B	65.06	26.82	20.00	111.88	112	65.06	26.82	7.12	99.00	**99**
C1	72.31	18.58	20.00	110.88	111	72.31	18.58	12.12	103.00	**103**
C0	83.43	18.58	20.00	122.01	122	83.43	18.58	11.99	114.00	**114**
C	91.82	18.58	20.00	130.40	130	91.82	18.58	11.61	122.00	**122**

28. *Protections for first-adjacent channel full service FM stations* – For first-adjacent minimum separation, we also use §73.807(b) as it was published in the October 1, 2010 edition of the CFR.[52] Using these distances, which were in effect at the time the LCRA was enacted, LPFM stations on first-adjacent channels will continue to over-protect full-service FM stations with buffer zones ranging from 14 to 17 kilometers:

[52] - Id.

	Current minimum separations					Proposed minimum separations				
Class	FS service contour	LP interf. contour	Buffer Zone	Total Min. Req'd.	Codified	FS service contour	LP interf. contour	Buffer Zone	Total Min. Req'd.	Codified
A	28.30	7.99	20.00	56.28	56	28.30	7.99	16.72	53.00	**53**
C3	39.08	7.99	20.00	67.07	67	39.08	7.99	16.93	64.00	**64**
B1	44.74	9.59	20.00	74.33	74	44.74	9.59	15.67	70.00	**70**
C2	52.20	7.99	20.00	80.18	80	52.20	7.99	16.82	77.00	**77**
B	65.06	11.36	20.00	96.42	97	65.06	11.36	14.58	91.00	**91**
C1	72.31	7.99	20.00	100.29	100	72.31	7.99	16.71	97.00	**97**
C0	83.43	7.99	20.00	111.42	111	83.43	7.99	16.50	107.92	**108**[53]
C	91.82	7.99	20.00	119.81	120	91.82	7.99	16.20	116.00	**116**

29. *LPFM will still be subject to inward interference* – Even if the minimum distance separation requirements between LPFM stations and full-service FM facilities are reduced to the absolute statutory minimums as outlined above, this does bring LPFM stations further inside the interfering contours of full-service stations. LPFM stations will need to continue to research whether the prospective channel will be able to provide interference-free service to the proposed LPFM service area based on additional factors such as terrain that was not considered by the contours and by actual monitoring of the proposed channel within the LPFM service area.

30. *Additional protections to address "foothill" LPFM stations* – With the proposed change in minimum distance separation, it will increase the chance that LPFM stations, especially those in "foothill" locations will place an interference contour inside the protected contour of a full-service station.[54] While a large majority of LPFM stations' interfering contours

[53] - In §73.807(b) as published in the October 1, 2010 edition of the CFR, the first-adjacent channel minimum separation to Class C0 was shown as 99 kilometers. This would have created a buffer zone of only 7.8 kilometers which would be inconsistent with the minimum distance separations for Class C1 and C stations. We believe this was an error that was never addressed as the Commission never had a filing window for new LP10 stations. Therefore, consistent with our proposed reductions for Classes C1 and C, we are proposing a minimum distance separation of 108 kilometers for Class C0 based on a buffer zone of 16.5 kilometers.

[54] - A "foothill station" is an LPFM station that is located in the foothills of a larger mountain range where the station is up against the mountain in one direction and overlooking a valley or other lower land thus creating a high elevation location with a very low HAAT. This results in very large service and interfering contours in some directions. For example, KJVA-LP in San Bernardino, California is a 100-watt foothill station that has a protected service contour that extends more than 10 miles to the farthest lobe.

will come short of the full-service protected contour in the buffer zone, we recognize that there may be a small increase of overlap situations. §73.209(c) states that permittees and licensees of full-service stations are not protected from interference which may be caused by the grant of a new LPFM station or of authority to modify an existing LPFM station, except as provided in subpart G.[55] §73.209(c) already recognizes that some LPFM stations may place an interfering contour inside a full-service protected contour. In an effort to bring LPFM on a more level playing field with FM translators, we are proposing to add an additional restriction that would require all subsequent LPFM authorizations to result in no contour overlap of the interfering contour of the LPFM station with the actual protected contour of the full-service FM station. LPFM stations should be permitted to either reduce power or use directional antennas in order to comply. LPFM stations short-spaced by subsequent application activity by the full-service station may continue to operate (subject to the limitations of §73.809(a)) but the LPFM will not be able to move in a manner that will increase interference to the full-service station and minimum distance separations are met.

31. *The reduction of distance separation is in the public interest* – REC feels that this change will bring needed relief to LPFM stations by allowing them more flexibility to address the possibility of displacement as a result of application activity by full-service FM stations and FM translators that may be located in a manner that will cause interference to the LPFM station despite providing appropriate protections using contours. The FM environment has changed substantially since 2000 when LPFM has been created and since then, LPFM has proven itself as a "mature" service that is engineered by professionals. In fact, during the 2013 LPFM filing window, over 50 percent of the granted original construction permit applications were filed by only 20 different preparers including REC's Michelle Bradley who was the "tech box" signatory on 4% of all LPFM applications.[56] This change also removes some of the "over-simplification" of LPFM, brings LPFM towards a more level playing field with FM translators and most importantly, it is consistent with the LCRA and past Commission precedence and we feel that it

[55] - 47 C.F.R. §73.209(c).

[56] - Michelle Bradley's name appeared on the tech boxes of 3.9% of all granted construction permit applications filed in the 2013 window. Danny Langston had the most at 6.1% and Leo Ashcraft had 5.7%.

is in the public interest to reduce the minimum distance separations to the absolute statutory minimums as proposed here.

2. Protections to FM translators, boosters and other LPFM stations

32. *Current rules: LPFM protecting translators and other LPFM stations* – §73.807(a) of the Commission's Rules requires LPFM stations to protect other LPFM stations on co-channel a minimum of 24 kilometers and on first-adjacent channel at a minimum of 14 kilometers. §73.807(c)(1) requires LPFM stations to protect FM translators on co-channel, first-adjacent and second-adjacent channels.[57] The amount of protection is fixed into three different tiers based on the size of the translator's service contour using the 8-radial height above average terrain (HAAT) method. The distance separation method does not take into consideration if whether the FM translator is operating a directional antenna.

33. *Current rules: FM translators protecting LPFM stations* - §74.1204(a)(4) of the Commission's Rules state that an FM translator must protect a LPFM on co-channel and first-adjacent channels only.[58] Translators are not required to protect an LPFM on a second-adjacent channel. Protection is achieved through the use of contour overlap. The interfering contour of the proposed translator facility cannot overlap the protected contour of the LPFM. FM translators can use variable power levels and directional antennas to demonstrate protection.

34. *Burdens facing LPFM stations since AM Revitalization* – Over the past year, REC has received many complaints from LPFM licensees that are in a situation where they are receiving interference from an FM translator that has "hugged" their station by placing an interfering contour around at least half of the LPFM's protected contour. The other situation that we are experiencing are FM translators that are using very directional antennas such as the Scala CL-FM in order to reach a certain area and the LPFM is far outside of the beamwidth of the antenna however due to the LPFM distance spacing rules, the LPFM station is short-spaced to

[57] - 47 C.F.R. §73.807(c)(1).

[58] - 47 C.F.R. §74.1204(a)(4).

the translator which prohibits the LPFM station from moving closer to the translator even if the new location would result in no contour overlap to the translator. Because of the existing distance spacing rules in respect to translators, the use of the 20 kilometer buffer zones towards full-service stations and no recourse under §74.1203(a), LPFM stations are deadlocked in their current situations that are putting their viability at risk in favor of subsequently authorized *secondary and supposedly equal-in-status* translators. Under the current rules related to LPFM, they only have two choices, put up or shut down.

35. *Contour overlap with some services is permitted under the LCRA* – When the RBPA was in effect, Section 632(a)(1) of the *2001 DC Appropriations Act* stated that the Commission was to "prescribe minimum distance separations". In Section 2 of the LCRA, the Section 632(a)(1) language was changed to only "prescribe protection" and then in Section 3 of the LCRA, language was added to specify distance separation, but only in respect to full-service FM stations. As we had previously stated, the term "full-service FM" does not include FM translators and FM boosters as those are called out separately in various parts of the LCRA. While it was true that after the enactment of the RBPA and prior to the enactment of the LCRA, the Commission was statutorily required to use distance separation in the protection of FM translators and LPFM stations, that requirement was repealed in the LCRA in respect to FM translators and LPFM stations but remained in place for full-service stations.

36. *REC's proposed rule change* – REC proposes to remove distance separation requirements from §73.807 of the Commission's Rules in respect to protecting FM translators, FM boosters and other LPFM stations. Instead, create a new section §73.815 which will specify contour overlap in respect to FM translator stations on co-channel, first and second adjacent channels[59]; and other LPFM facilities on co-channel and first-adjacent channels. §73.816 would be amended to allow for the use of directional antennas by LPFM stations for the purpose of protecting FM translators and other LPFM stations. FM boosters do not require any specific

[59] - While FM translators are currently not required to protect LPFM stations on second-adjacent channels, REC interprets the remaining language in Section 632(a)(1) *2010 DC Appropriations Act* to still require some form of second-adjacent channel protection. ("Prescribe protection for co-channels and first- and *second-adjacent* channels.") To move LPFM to a more level playing field with translators, we need to consider a second-adjacent channel protection requirement from translators to LPFM.

protection from LPFM stations as their protection would come from their primary station's protected contour and buffer zone.

3. LPFM stations within 125 kilometers of Mexico

37. In the international agreement between the United States and Mexico, low-power secondary stations within 125 kilometers of the common border with Mexico are limited to 50 watts ERP, a service contour of 8.7 kilometers and a 34 dBu interfering contour not exceeding 32 kilometers in the direction of Mexico.[60] As a result, LPFM stations, which are currently non-directional in nature, are limited to 50 watts in all directions, including those headings that are not within 125 kilometers of Mexico.[61] As a result, stations in northern San Diego County California, Tucson Arizona and other communities that are not right on the border are having to substantially limit their coverage to many parts of their community compared to an LPFM station further north, such as in Phoenix would be allowed to operate at a full 100 watts. The Audio Division routinely grants FM translators to operate at ERPs in excess of 50 watts using directional antennas which keep the ERP to 50 watts or less along the radials that are within 125 kilometers with Mexico.

38. Because of the burden that this is placing on LPFM stations in areas within 125 km of the border but not right on the border, REC is asking the Commission to first amend §73.807 to codify the existence of the 50 watt limit but to also provide a provision in §73.807 and §73.816 to allow LPFM stations within 125 kilometers of Mexico to utilize directional antennas to operate in excess of 50 watts ERP along radials that are not within 125 km of the common border of Mexico. REC does feel that this is in the public interest as it will improve LPFM service in places like Tucson Arizona and San Diego California as well as other communities near the border.

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[60] - See *Agreement Between the Government of the United States of America and the Government of the United Mexican States Relating to the FM Broadcasting Service in the Band 88~108 MHz.* at Annex 1; 2.1.2 and 2.1.3.

[61] - See R&O at footnote 124.

B. §73.809: Intermediate frequency (I.F.) overlap.

39. In the *Sixth R&O,* the Commission removed the intermediate frequency (I.F.) minimum distance separation requirement in order to bring LPFM to a level playing field with FM translators.[62] In addition to the I.F. spacing requirements being removed from §73.807 in respect to domestic facilities, the Commission amended §73.809(a) by striking as follows:

> If a full service commercial or NCE FM facility application is filed subsequent to the filing on an LPFM station facility application, such full service station is protected against any condition of interference to the direct reception of its signal caused by such LPFM station that operates on the same channel or first-adjacent channel ~~or intermediate frequency (IF) channels~~ as the LPFM station, where interference is predicted to occur and actually occurs within:

Despite the elimination of that language, the Commission left the following language in §73.809(a)(3):

> [A]ny area of the community of license of an NCE FM such full service station that is predicted to receive at least a 1 mV/m (60 dBu) signal. Predicted interference shall be calculated in accordance with the ratios set forth in Section 73.215(a)(1) and (2) of this Part. Intermediate Frequency (IF) channel interference overlap will be determined based upon overlap of the 91 dBu F(50,50) contours of the FM and LPFM stations. Actual interference will be considered to occur whenever reception of a regularly used signal is impaired by the signals radiated by the LPFM station. *(emphasis added)*

40. While the language in §73.809(a) would disqualify the language in §73.809(a)(3) in regards to IF interference, the language in subparagraph (3) is causing confusion and with the elimination of IF channel spacing requirements, the IF language is currently unnecessary. This language may return in the future if the Commission ever permits LPFM stations to operate at

[62] - 6th R&O at 210.

ERPs exceeding 100 watts.[63] REC considers this provision outdated and therefore it should be amended.

C. §73.810: Third adjacent channel periodic announcements

41. In the *Sixth R&O,* the Commission interpreted Section 7 of the LCRA into two different "regimes".[64] According to the Commission, "Only Section 7(1) specifies requirements for [LPFM] stations that do not satisfy third-adjacent channel spacing requirements" and that Section 7(3), in contrast, directs the Commission to require "[LPFM] stations on third-adjacent channels... to address interference complaints within the protected contour of an affected station".[65] In comments, REC expressed concern about the issue regarding the wording used in the 2010 version of the LCRA in light of the House version of the 2009 LCRA prior to amendments which did not contain the amendment that would eventually become Section 7(1) in the enacted 2010 LCRA.[66] In other words, we believe that it was Congress' intention for Section 7(1) to include the same group of stations that would fall under the so-called 7(3) regime. The area of concern to REC was the required broadcast of "periodic announcements" as required under Section 7(2) of the LCRA. Under the Commission's interpretation, LPFM stations "on third-adjacent channels" but do meet minimum spacing to third adjacent channel stations were required to air the periodic announcements and LPFM stations that are short-spaced to third-adjacent channel stations are not required to run the announcements.

42. Denying REC's argument that the periodic announcements applied to only applied to non-short-spaced LPFM stations, the Commission codified §73.811(b)(2)(a) which states in part:

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[63] - In this proceeding, REC will also be asking that the rules for FM translators be updated to place the I.F. exemption at 100 watts ERP or less.

[64] - 6th R&O at 87.

[65] - Id.

[66] - 6th R&O at 98.

> *For a period of one year from the date of licensing of a new LPFM station that is constructed on a third-adjacent channel and satisfies the third-adjacent channel minimum distance separations set forth in Section 73.807, such LPFM station shall broadcast periodic announcements. The announcements shall, at a minimum, alert listeners of the potentially affected third-adjacent channel station of the potential for interference, instruct listeners to contact the LPFM station to report any interference, and provide contact information for the LPFM station.*[67]

43. REC took this matter to reconsideration in which the Commission denied.[68] In addressing one of the arguments raised by REC which was that the codified rule did not include any upper limit of distance of which determined the third-adjacent channel stations would be announced in the messages. The Commission set a limit of the closest third-adjacent station on each channel as long as the station is within 100 km.[69]

44. REC attempted to support this rule by showing LPFM stations through our myLPFM broadcast management tool which third-adjacent channel stations the LPFM station should include in the announcements. For LPFM stations, the announcements have been awkward and confusing, especially when it involves stations more than 60 miles away. We still believe that this law was never intended for any third-adjacent channel station that does not place a protected service contour over the LPFM station especially considering that the remediation process in Section 7(3) only applies to LPFM stations inside the protected contour of the third adjacent channel station except in New Jersey where Section 7(6) mandates the use of §74.1203 criteria.

45. REC feels that if the Commission is going to base the "Section 7(3) regime" on the way that Section 7(3) is written, then it needs to base it on the whole definition which

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[67] - 47 C.F.R. §73.811(b)(2)(a)

[68] - See *Creation of a Low Power Radio Service,* Sixth Order on Reconsideration, FCC Rcd 28 FCC Rcd 14489 at 34-38.

[69] - Id. at 38.

addresses LPFM stations within the third-adjacent channel protected contour. Due to the public confusion of the periodic announcements (assuming the stations did broadcast the announcements) and to have a rule that we feel best represents the interests of Congress, who we all know are not broadcast engineers, but individuals who write information fed to them by organizations from both low-power and full-service interests, we are asking the Commission to take a hard-look at this situation because LPFM stations are not required, even in the LCRA to provide any protections to third-adjacent channel stations that do not meet the minimum spacing (e.g. not near or inside their protected service contours) with the sole exception of third-adjacent channel stations located in the state of New Jersey. The Commission's current interpretation of this aspect of the LCRA is incorrect and not in the public interest. Instead, REC feels that this public announcement rule needs to apply to LPFM stations that do not meet third-adjacent channel distance separation.

D. §73.816: Directional antennas

1. Use of composite antenna patterns

46. Directional antennas were introduced to the LPFM service in the *MO&O on Reconsideration* in 2000. They were requested by New York State Thruway Authority as a solution for licensees who planned to operate LPFM stations as travelers information services (TIS) to be able to direct the signal in a specific direction with high gain antennas resulting in lower transmitter power outputs.[70] The Commission permitted the use of directional antennas in LPFM but restricted their use to public safety entities operating as a TIS.[71] At that time, the Commission restricted directional antennas to "off-the-shelf" models as opposed to allowing for composite patterns stating that the latter can be exceedingly complicated.[72] The use of directional antennas was expanded in the *Sixth R&O* with the implementation of rules related to second-

[70] - See *Creation of a Low Power Radio Service,* Memorandum Opinion & Order on Reconsideration, 15 FCC Rcd 19208 (2000, "Recon Order") at 46.

[71] - Id. at 49.

[72] - Id. at 50 and footnote 53.

adjacent channel waivers.[73] Without offering any discussion on the issue, the Commission kept LPFM limited to "off-the-shelf" directional antennas, even for second adjacent channel short spaced stations.[74]

47. When directional antennas were limited to TIS stations, it was understandable to keep with simple "off-the-shelf" designs. However with the expansion of directional antenna use in the *Sixth R&O,* the Commission also cautioned "LPFM applicants against using this technical flexibility to limit the already small service areas of LPFM stations to such an extent that, while their LPFM applications are grantable, the LPFM stations will not be viable."[75] Most of the so-called "off-the-shelf" directional antennas, mainly the Katherin Scala (SCA) antennas which the FCC approves for LPFM stations are of very narrow beamwidth and therefore would very much limit the population served when used in the "off-the-shelf" configuration regardless of how it is rotated. For example, let's say we have a hypothetical LPFM station located in Panorama City, Calfiornia.[76] This station is operating 100 watts with a about a 50 foot radiation center. If that station operates on a non-directional antenna, it will serve a population of 467,478 with a service area of 42.107 square miles. Now, let's say what we need to protect a single residence and we have to place a directional antenna at 315 degrees towards Mission Hills and Granada Hills. The following chart shows the population served by some of the various "off-the-shelf" antennas:

[73] - 6th R&O at 79.

[74] - Id.

[75] - 6th R&O at 80.

[76] - Located at NAD27 34-13-34.3 NL, 118-26-45.9 WL. Radiation center 15 meters above ground level, 265 meters radiation center altitude mean sea level, minus 84 height above average terrain and operating 100 watts ERP.

Antenna (CDBS pattern ID#)	Population in 60dBu	% of non-directional	Square miles	% of non-directional
Non-directional	467,478	100.0 %	42.107	100.0 %
Scala CA-2 horizontal (16129)	171,916	36.7 %	14.646	34.8 %
Scala CA-2 vertical (16130)	165,256	35.4 %	14.198	33.7 %
Scala CA-2 circular (16125)	166,191	35.6 %	14.267	33.9 %
Scala CA5-150 horizontal (16146)	149,279	31.9 %	11.737	27.9 %
Scala CA5-150 vertical (16147)	172,932	37.0 %	14.076	33.4 %
Scala CA-5-CP-RM circular (16149)	166,913	35.7 %	13.303	31.6 %
Scala CL-FM horizontal (16150)	121,164	25.9 %	8.724	20.7 %
Scala CL-FM vertical (16151)	142,856	30.6 %	11.408	27.1 %

As shown in this chart, by limiting directional antennas to "off-the-shelf" designs, the Commission is limiting LPFM stations to only about one-third of its potential. At the same hypothetical facility, we will take two Scala CA-5-CP-RM circular polarized antennas, place them in a skewed configuration with antennas rotated at 240 and 315. That configuration has just grown our coverage from 166,913 (35.7%) to 254,746 (54.5%) persons.

48. REC is aware of at least one LPFM station where a skewed antenna was proposed and was granted by the Commission. The directional antenna was necessary in order to prevent interference to a single residential structure. The proposed area is in a mountainous area with homes in the mountains but also overlooking a community at a lower elevation. Two Scala CA2-FM/CP antennas were used in a skewed array at 202 and 298 degrees. In this case, if the applicant could operate non-directional, they would reach 11,410 persons. With the authorized and built directional antenna, the station is reaching 8,760 persons or nearly 77 percent of their potential audience while still protecting a single residential structure.

49. If designed correctly, the use of a skewed array can properly do the job of protecting the short-spaced second adjacent channel station while serving as many people as possible. The initial reconsideration request to use directional antennas was filed prior to the first ever LPFM filing window opportunity. This was before we knew who was going to be filing for LPFM stations and the skill sets of those applicants and any hired help. Also during that period of time, CDBS was new and electronic filing was a brand new thing. It would be understood why there would be resistance to allow for anything other than simple. But as we

saw in the 2003 Auction 83 and the 2007 NCE filing windows, CDBS and the Commission's own FM Study program were ready to meet the challenges of every directional antenna design under the sun.

50. In the 2013 window, LPFM proved itself to be a mature service and applicants did have the resources to use "hired help", such as REC for assistance with their applications. Of the three top "tech box" certifiers in this past window, one is a respected name in the full-power and translator business, one has left the business and one is the author of these comments. With that, I can say with authority that the flexibility of using composite directional antennas in the LPFM service will not necessarily be a burden on applicants or preparers at the application phase. REC does agree that there will be some LPFMs that will not be able to afford a directional antenna array but for those that can, they should be afforded that flexibility.

51. Because of the maturity of LPFM over the past 17 years and given that a majority of LPFM applications are being filed by "hired help", many with experience with directional antennas, REC feels that any restrictions on composite antennas as suggested in the *Sixth R&O* is outdated and burdensome and therefore unnecessary. We do note that while the *Sixth R&O* does require "off-the-shelf" antennas even for second-adjacent channel waivers, it is not necessarily codified that way. REC is currently not aware of any LPFM station using a directional antenna for a TIS. However, based on what we are going to propose for directional antennas, we will propose to keep this language in the rule, but without restriction on composite antennas.

2. Use of directional antennas in LPFM

52. As already mentioned, §73.816(b) prohibits the use of directional antennas in the LPFM service but carves-out two exceptions for TIS and for second-adjacent channel waivers.[77] Consistent with what REC has already proposed in these comments, we feel that it would be appropriate to extend the scope of directional antennas to include other reasons including:

[77] - 47 C.F.R. §73.816(c)

- In order to assure that the interfering contour of an LPFM station does not overlap into the protected service contour of a full-service FM station;
- In order to use contour overlap to protect FM translator stations;
- In order to use contour overlap to protect other LPFM stations;
- In order to use contour overlap to protect channel 6 TV facilities and
- In order to comply with international agreements.

53. REC feels that the public interest dictates that LPFM stations be permitted as equal of a playing field as possible with FM translators. As a service equal in status and licensed based on community need, we feel that this flexibility will give existing and new LPFM stations the ability to best serve their local communities while preventing interference to other stations. We do note that while most LPFM stations will likely be non-directional, these directional options need to be there for those who need them.

E. §73.825: Protection to reception of TV channel 6

54. LPFM stations proposing operation on the reserved band channels 201 through 220 must also protect TV, LPTV, Class A and TV translator stations operating on Channel 6, which is the spectrum directly adjacent to the FM broadcast band at 82 to 88 MHz. In the *R&O,* the Commission citing the need for applicants to conduct "complex calculations" and detailed contour studies and to prevent placing a burden on applicants used minimum distance separation tables utilizing worse-case scenarios for TV stations.[78] In the *Reconsideration Order,* the Commission added a separate distance table for LPTV stations.[79] Calculations of the minimum distances to Channel 6 TV stations is based on a standard 47 dBu F(50, 50) service contour (also known in analog TV as the "Grade B" contour) and a F(50, 10) interfering contour for the FM facility that ranges from 54 dBu for channel 201 to 90 dBu for channel 220. In LPFM, the minimum distance separation is determined by adding the TV station's protected contour with

[78] - R&O at 114.

[79] - Recon. Order at 42.

the LPFM station interfering contour. LPFM stations on channels 221 to 300 (92.1~107.9) are not required to protect TV channel 6.

55. In the *Reconsideration Order*, the Commission clarified that the "worse-case" facilities used for determining the distance separation are based on full-power TV facilities operating at 100 kW ERP at 610 meters HAAT and LPTV facilities operating at 3 kW ERP at 610 meters HAAT. Like with the protection of FM translators, the minimum distance separation does not take into consideration low-power TV facilities that operate directional antennas. In addition, the rules for LPFM, FM translators and full-service NCE FM stations are based on the analog television service. No new standards have ever been developed. In fact, National Public Radio (NPR) has filed a *Petition for Rulemaking* to eliminate the channel 6 protection requirements, a move staunchly opposed by the NAB and the Association for Maximum Service Television, Inc. (MSTV)[80]

56. While REC supports the complete repeal of §73.525 as well as companion rules §73.825 and §74.1205, LPFM stations need immediate relief from the over-restrictive channel 6 protection rules specific to LPFM that reduce the availability of channels for LPFM stations, especially those facing displacement due to incoming interference. As mentioned, the Commission considers all LPTV stations as non-directional facilities operating with 3 kW ERP to 610 meters HAAT thus creating a 47 dBu protected contour of 87 kilometers. This means that no matter if the LPTV station is 3 watts or 3,000 watts, it is given a blanket service contour of 87 kilometers. REC has performed an analysis on the 47 dBu protected contours of the remaining LPTV channel 6 TV stations (analog and digital) and we have calculated their actual service contour distances based on ERP and HAAT:

[80] - See *Petition for Rulemaking of National Public Radio to Repeal Section 73.525 of the Commission's Rules,* RM-11579.

47 dBu service contour size	LPTV facilities	% of facilities
Between 0~10 kilometers	12	9.2 %
Between 10~20 kilometers	21	16.2 %
Between 20~30 kilometers	39	30.0 %
Between 30~40 kilometers	19	14.6 %
Between 40~50 kilometers	8	6.2 %
Between 50~60 kilometers	15	11.5 %
Between 70~80 kilometers	6	4.6 %
Between 80~87 kilometers	4	3.1 %
87 kilometers or greater	6	4.6 %
Total facilities	130	100.0 %

As this chart shows, out of the 130 low-power television facilities that still operate on TV channel 6, only 10 stations (7.6 %) have service contours that exceed 80 kilometers. A majority of low-power facilities have service contours of 30 kilometers or less. In other words, we are overprotecting LPTV channel 6 stations by over 3 times their protected contour sizes while FM translators can use contour overlap and other options to use reserved band channels.

57. REC is proposing that the Commission amend §73.825 in order to replicate similar rules as in §74.1205. Specifically, we would keep the current minimum distance separation charts in §73.825 however, we propose to add a process where if a proposal is "short-spaced" to a TV channel 6 station using the "worse-case" distance separation charts, the applicant can use contour overlap in order to demonstrate that the LPFM station will not cause interference to the TV channel 6 station. Like with FM translators, LPFM stations should also have the option of reaching an agreement with the affected channel 6 licensee or permittee.[81] Like with FM translators, many of those who prepare LPFM applications including those 20 who represent more than 50 percent of the applications in the 2013 LPFM filing window (including Michelle Bradley from REC) are equipped to conduct contour studies if LPFM stations were able to use §74.1205-style contour overlap studies to propose reserved-band LPFM facilities. For those reasons, REC considers §73.825 as a burdensome rule and feels that the rule should be

[81] - See 47 C.F.R. §74.1205.

either repealed or amended to allow for contour overlap studies or consent of the channel 6 licensee or permittee. [82]

F. §73.860: FM translators owned by LPFM stations

58. In the *Sixth R&O,* the Commission opened the door to allow LPFM stations to own and operate FM translators to allow broadcasters to improve service to oddly-shaped communities and to rural communities.[83] In doing so, the Commission placed several limitations on the FM cross-ownership of translators:

- LPFM stations were limited to two translators except for tribal nations which can own up to four translators,
- The 60 dBu contours of the commonly-owned LPFM station and translator overlap,
- The FM translator rebroadcasts at all time the main analog or HD-1 stream of the LPFM station,
- The FM translator receives the primary LPFM station directly over the air, and
- The FM translator must be located within 20 miles of the LPFM station (10 miles in markets 1~50).[84]

59. In 2017, based on a waiver request filed by REC on behalf of two LPFM stations with substantial terrain challenges, the Commission waived §73.860(b)(3) related to over-the-air

[82] - REC also evaluated the future availability of channel 6 for use by full-service stations as a result of the Incentive Auction. Prior to the auction, there were 8 full service TV stations on channel 6 in Alabama, Georgia (2), Kansas, Montana, Nebraska, New York and Pennsylvania. As a result of the auction, only 2 TV stations in Ohio and Pennsylvania have been reallocated on channel 6 and the incumbent 8 stations remain. REC does not feel that the repack will have any impact that would prevent any consideration of the repeal or amendment of §73.825. If anything, it further demonstrates that Channel 6 can be cleared for future expansion of the FM broadcast band for use by AM licensees and community-based LPFM stations by creating 30 analog channels from 82.1~87.9 MHz. See *Technical Parameters for Post-Auction Table of Allotments* also *Incentive Auction Closing and Channel Reassignment Public Notice; Incentive Auction Closes; Reverse Auction and Forward Auction Results Announced; Final Television Channel Assignments Announced; Post-Auction Deadlines Announced,* Public Notice, 32 FCC Rcd 2786 (2017).

[83] - 6th R&O at 141-142.

[84] - 47 C.F.R. §73.860(b) and (c).

reception and §73.860(a) to permit the cross-ownership of a FM booster that would be used as one of the LPFM station's two permitted "translators".[85] REC feels that LPFM stations have some unique aspects to them and translators provide a unique opportunity to extend their reach while maintaining an overall hyperlocal nature. We would like to address a couple of rules that, based on the development of the LPFM service and the issues in the aftermath of Auction 83, we feel are now burdensome and now unnecessary in order to allow LPFM stations to create a unique service custom-tailored to their community.

1. Contour overlap and over-the-air reception

60. In the *Sixth R&O*, citing concerns about "leapfrogging" into unconnected, distant communities; the Commission set specific restrictions that would require FM translators commonly-owned by LPFM stations to have a service contour that overlaps in some way with the primary station and that commonly-owned FM translators must receive the primary signal over the air as opposed to microwave or internet protocol delivery.[86] This was at a time when concerns about the activities of the FM translators obtained in the Auction 83 filing window as well as concerns about *satellators* were very fresh. Some feared that commonly-owned LPFM translators would be used for purposes other than rebroadcasting the local LPFM station and that translators could be "trafficked" for profit. While the issues with satellators is still valid today as it always has been, REC feels that there are redundant rules on commonly-owned FM translators and that with the repeal of some of these restrictions, the surviving rules could continue to assure localism while providing LPFM stations with unique solutions to meet their local community needs.

61. <u>*Contour overlap requirement*</u> - §73.860(b)(1) requires that the 60 dBu contours of the commonly-owned LPFM station and FM translator overlap.[87] While this rule was well-

[85] - See *Strategic International Ministries,* BNPFTB-20150521ACF ("Strategic", Granted, June 22, 2017) and *Laguna Radio, Inc.*, BNPFTB-20160421AFL ("Laguna", Granted, June 22, 2017).

[86] - *6th R&O* at 142.

[87] - 47 C.F.R. §73.860(b)(1).

intended to assure that LPFM translators cannot extend out too far thus jeopardizing the hyperlocal nature of the service, the contour requirement does provide challenges for LPFM stations, especially those in rural areas. Unlike LPFM for the past 17 years, FM translators can be authorized as directional or non-directional facilities and in some areas, operating a directional facility is the only option. This rule can be burdensome to an LPFM station that wants to provide service to a different part of town or to a rural community within the same county but because the contours do not touch, the translator is not possible thus denying community radio service to that additional area.

62. *Over-the-air reception* - §73.860(b)(3) requires commonly-owned FM translators to receive the primary LPFM station over the air and without the assistance of another translator.[88] This rule is a direct result of the concerns over *satellators* and the potential that a commonly-owned FM translator will take programming directly off of a satellite and rebroadcast it instead of rebroadcasting the primary LPFM station. Because of the noise floor on FM, especially in light of the ongoing increase in FM translators and due to the eventual ability for LPFM stations to operate with directional facilities, we feel that with other surviving restrictive rules, will help control how far an LPFM station can be heard through a translator.

63. Existing rules that can manage LPFM translator localism – REC feels that even with the repeal of rules addressing contour overlap of the primary station and over-the-air reception of the primary station, the hyperlocal nature of LPFM can be maintained by the surviving rules in §73.860(b). Specifically, commonly-owned LPFM stations will still be required to rebroadcast their primary analog or HD-1 digital signal. This will assure that LPFMs are using the translator to expand their current programming and not using the translator to rebroadcast an unrelated service. We propose to still require a commonly-owned FM translator to be located within 20 miles of the LPFM primary station (10 miles in markets 1~50). These surviving rules will address the satellator concerns as it will still require a commonly owned translator to broadcast the commonly-owned LPFM programming. In addition, with the 20 or 10 mile restriction on placement of the translator, LPFM stations will not, themselves become

[88] - 47 C.F.R. §73.860(b)(3).

satellators thus diminishing the hyperlocal nature of the LPFM service. Since commonly-owned FM translators will continue to be rightfully reigned-in through distance and primary station requirements, we feel that it is safe to remove the redundant and now unnecessary restrictions regarding contour overlap and program delivery and will allow LPFM stations more flexibility to custom tailor hyperlocal community radio to their area's geographic requirements.

2. FM boosters for LPFM

64. In the Sixth R&O, the Commission declined to authorize boosters for LPFM stations citing that there would be very few situations where an LPFM station could operate one without causing interference to its own primary signal.[89] While REC was able to successfully get rule waivers for two stations, we do agree that in most, but not all cases would an FM booster would not be beneficial to an LPFM station. In *Strategic*, we had a situation where an LPFM station was situated in a foothill area with terrain so unique that there were areas between 2 and 10 miles to the east that were also of lower elevation terrain. This created a very unusually-shaped protected service contour. The booster helped fill in that area, that was otherwise being reserved for them through contour protection but was blocked due to terrain. In *Laguna*, we had a rare case of a textbook low-level LPFM station with a perfect 5.6 kilometer protected contour had a portion of that contour cut off by terrain thus resulting in a complete cut out of the signal. Utilizing a directional antenna and taking advantage of being able to place a signal over the ocean beyond the service contour, we managed to propose to help fill-in their coverage along a portion of one of America's most famous highways.

65. While REC is aware of a small number of other candidates for boosters, we are concerned that boosters may be attempted where either cause interference to co-channel and first-adjacent channel stations, second or third-adjacent channel stations as well as interference to the primary station. Unlike full-service FM stations, LPFM stations can very easily overlap its protected contour inside the interfering contour of another station. Because of this flexibility, this makes the current FM booster rules non-applicable for boosters operated for LPFM stations

[89] - 6th R&O at footnote 333.

or even cross-service FM translators. Since the grants of *Strategic* and *Laguna*, REC has received several inquiries about FM boosters for LPFM stations. In most of the cases, it would not be viable as there were few areas within the primary service contours that received a weak signal (45 dB or less) where an FM booster can be legally placed and remain within the 60 dBu contour of the primary station.

66. In response to the inquiries, REC has published a fact sheet which includes some of the various technical aspects that REC looked at as part of the *Strategic* and *Laguna* waiver requests. These guidelines include:

- The protected contour of the proposed booster is fully inside the protected service contour of the primary LPFM station and an ERP of no more than 20 watts is proposed.
- The LPFM facility that the booster will be based on is licensed (and not under an unbuilt construction permit).
- In markets 1~50, the proposed FM booster location is within 10 miles of the LPFM station.
- The booster must run on the same channel as the primary station and carry the same exact programming as the primary station.
- The LPFM station must currently meet §73.807(a) to all full-service stations on co-channel and first-adjacent channels.
- The (40/37/34 dBu) interfering contour of the booster can not overlap the (60/57/54 dBu) protected contour of co-channel full-power, class-D, FM translators and LPFM stations.
- The (54/51/48 dBu) interfering contour of the booster can not overlap the (60/57/54 dBu) protected contour of first-adjacent full-power, class-D, FM translators and LPFM stations.
- If the (60/57/54 dBu) protected contour of a second or third-adjacent channel full-power, class-D or FM translator overlaps the (100/97/94 dBu) interfering contour of the proposed booster, than a showing must be made that the resulting interfering contour based on a 40 dBu U/D ratio will assure that the interfering contour from the booster will not reach any occupied structure or four lane highway.
- In the reserved band, the 47 dBu protected service contour of a channel 6 TV, LPTV, Class-A or TV translator does not overlap the appropriate interfering contour of the FM channel (see §74.1205(c)(3)).

- Facilities near Canada and Mexico will have additional issues related to their appropraite international agreements.

The guidelines shown very much mirror rules relating to FM translators. As REC stated in the waiver requests, a booster is much like a translator except that it uses the same channel. In this proceeding, REC is also going to propose the ability for cross-service FM translators to be able to obtain boosters. REC does propose that certain aspects of the FM translator rules, such as §74.1204(a) be amended to allow FM boosters for LPFM to be required to meet various FM translator engineering rules. The bottom line is that these requests should be rare but for those LPFM stations that can benefit, like *Strategic* and *Laguna*, we need this method in place.

G. §73.865: Assignments and transfers

1. Overview

67. *History of assignments and transfers in LPFM* - During the comment periods that lead to the original NPRM, it was recommended by some community radio advocates that LPFM construction permits not be transferrable to another party. That was recommended in context with a 12-month proposed construction period.[90] The Commission would eventually determine that LPFM licenses would not be transferrable in order to assure that spectrum is available for low power operations without the delay associated with license speculation.[91] In 2007, the Commission would eventually amend the rules to permit the non-profit assignment of LPFM licenses after a three-year holding period with a prohibition remaining on the assignment of construction permits.[92] The three-year holding period was recommended by Prometheus Radio Project to prevent the trafficking of permits and licenses similar to the excessive trafficking of construction permits that was taking place with the granted singleton applications for the 2003 Auction 83 FM translator window.[93]

[90] - NPRM at 79.

[91] - R&O at 163.

[92] - 3rd R&O at 16-17.

[93] - Id. at 17.

68. *A desire to help "save the station"* - Following the 2013 LPFM filing window, REC received many inquiries from LPFM permittees that were not able to construct and from other organizations who were in a position to construct a station. They wanted to know if a different organization can "take over" a construction permit in order to "save the station". §73.865 of the Commission's Rules prohibits an assignment of a construction permit and a license that has been granted for less than three years.[94] Following the 2013 LPFM window, four applications were filed to request an assignment of a construction permit and an additional three assignments of license were filed by LPFM stations from the 2013 window.[95] In the case of *San Marcos Voice*, the request to assign the permit stemmed from a legal dispute internally within the organization and the assignment was requested in order to prevent the San Marcos community from losing this "vital opportunity" and that its loss would "certainly go against the overall public interest, rather than to serve the public interest".[96]

69. *Assuring that LPFM licenses are not "sold"* - When the Commission permitted the assignment of LPFM licenses after a 3-year holding period, it stated that "the for-profit sale of LPFM authorizations to any buyer is fundamentally inconsistent with the Commission's desire to promote local, community based use and ownership of LPFM stations".[97] REC feels that this statement is still applicable to the service and we continue to support the Commission's position on this. We are concerned though that in *HGN Music,* that the schedule of terms in the Asset Purchase Agreement was redacted citing *LUJ Inc.*[98] In *LUJ Inc.,* the Commission found that "an

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[94] - See 47 C.F.R. §73.865(c) and (d).

[95] - See *City of Morro Bay,* BALL-20161011ABL (dismissed November 29, 2016); *HGN Music & Education Foundation,* BALL-20160930AII (dismissed December 13, 2016, "HGN Music"); *Wolfe Communications*, BALL-20160520ABD (dismissed July 7, 2016); *Olympia All Ages Project,* BAPL-20170123FLG (dismissed February 7, 2017); *Mitchell County Public Radio, LLC*, BAPL-20150723ABN (dismissed August 4, 2015) and *San Marcos Voice*, BAPL-20150209ABL (dismissed March 2, 2015, "San Marcos 1") and BAPL-20150330AFW (dismissed October 8, 2015, "San Marcos 2").

[96] - See *San Marcos 2* at Exhibit 1.

[97] - 3rd R&O at 15.

[98] - See *HGN Music* at Exhibit 5.

applicant's failure to submit [certain] documents is neither a material omission [...] nor grounds for a finding that the transaction is not in the public interest".[99] However, the Commission did clarify in a footnote that examples of such immaterial documents includes employee benefit plans and vendor supply contracts.[100] As LPFM assignments are non-profit in nature and that any consideration promised or received may not exceed the depreciated fair market value of the equipment and facilities[101], it is in the public interest to assure that any consideration must be itemized and certified in the application process.

70. *Assignment rules must evolve for a mature service* - Like with other LPFM rules, we have evolved from the Bill Kennard days of a simple, easy to construct LPFM service to the complex broadcast service that it is today. When LPFM went from "infancy" to "childhood", the Commission realized that there truly was a need to allow LPFM stations to assign their licenses and they decided to proceed with caution, especially given the active situation that was taking place in the FM translator service with the aftermath of Auction 83. The realities of what happened in aftermath of the 2013 window has demonstrated that LPFM is now past its childhood and has reached maturity. With that, we need to treat LPFM like a mature broadcast service, but at the same time, we still need to keep our guard up. With that, the current rules are burdensome because they do not permit an LPFM station to be saved and does not permit another organization to continue a service if the previous organization must abandon it in the first three years. The ownership rules partially protect the service from speculation and other bad actors. With that, we are asking the Commission to amend §73.865 to reflect the reality of today.

2. Assignments of licensed (on the air) LPFM stations

71. REC feels that LPFM has matured and based on real-world situations, the current rules for assignments and transfers are outdated and still thrive on the Kennard-era desires of

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[99] - See *LUJ, Inc.*, Memorandum Report and Order, 17 FCC Rcd 16980 ("LUJ Inc.", 2002) at 7.

[100] - Id. at footnote 12.

[101] - See 47 C.F.R. §73.865(a)(1).

simplicity and in the wake of a real concern in the mid-2000s. For constructed stations that are fully licensed, REC is proposing to eliminate the 3-year holding period. Stations that are constructed and on the air have already made a significant investment in their community through the construction of the station. The ability to assign a license within the first three years can address issues where one organization is no longer able or willing to operate the station but there is another qualified non-profit organization waiting in the wings that is willing to provide a community radio service perhaps similar to *Morro Bay.*

72. With that, we must keep the rules that assure that LPFM licenses will be assigned without any promised or actual consideration above and beyond the depreciated fair market value of any tangible goods that are a part of the transaction and we must positively codify a requirement of a schedule of tangible goods with a fair market value for each line item as a part of the assignment application in order to prevent confusion through the dependence on *LUJ, Inc.*

73. In order to further assure that the rules are not circumvented by "weaker" organizations by using "stronger" organizations to get them a license, we are proposing for stations licensed for less than 4 years, that if an original construction permit was awarded based on the process handling of mutually exclusive applications, the assignee organization must meet or exceed the same point value as the assignor.[102] If the MX group reached a tie-breaker, then the assignee must have a community presence date that is the same or older than the youngest granted station in the group.[103] This will prevent anyone from "cutting in line".[104]

3. Assignments of failing construction permits

74. REC supports efforts to save stations. We must acknowledge that some LPFM stations may not be able to finish construction but there may be another equally-qualified organization that could. We feel that we should allow the originally granted applicant to have an

[102] - See 47 C.F.R. §73.872(b).

[103] - See 47 C.F.R. §73.872(d)(3).

[104] - For example, there were 4 members of the original MX group, all equally qualified. Their local presence dates were in 1965, 1974, 1983 and 1992. No timeshare proposals involving

opportunity to construct the station but if it is determined that the effort is failing, then, the grantee should be able to transfer. We are proposing an 18-month holding period on the assignment of original construction permits. Organizations that are still not able to construct after 18 months would be permitted to assign their permit to another organization. The new organization must meet all of the LPFM qualifications and like proposed by REC for assignments of licenses, we would also require that any construction permit that was granted as a result of a point evaluation under §73.872(b), can only be assigned to another organization that would meet or exceed the number of points that are held by the assignor and if a tie was originally declared in the MX group, then the assignee's local presence date must meet or be older than the assignor. We feel that this is a reasonable solution and a balance strike in order to save stations while preventing trafficking and speculation.

H. Definition of a minor change

75. When LPFM was first created, §73.870(a) permitted LPFM (LP100) stations to move up to 2 kilometers as a minor change. The original *Report and Order* had offered no specific discussion on this specific provision. On reconsideration, the Commission allowed LPFM On reconsideration, the minor change distance was extended to 5.6 kilometers for LP100 stations.[105]

76. With the 2013 window and the increase in LPFM stations in urban areas due to the ability for second-adjacent waivers, there have been many circumstances where no viable or affordable tower sites within 5.6 kilometers of the authorized site. Since 2013, the Audio Division has routinely granted waivers of §73.870(a) to permit moves of more than 5.6 kilometers upon a compelling argument that there are no viable facilities.[106] In fact, REC has

[105] - See *Creation of A Low Power Radio Service,* Second Order on Reconsideration, 20 FCC Rcd 6763 (2005, "Second Recon") at 12-13.

[106] - See *Southside Media Collective,* BMPL-20150720AAH (Granted, July 22, 2015) (9.2 kilometer move justified due to a lack of viable sites within 5.6 km as well as well as offering the ability to move the LPFM station closer to the headquarters and the community the organization serves.); also *Sloan Canyon Communications*, BMPL-20140623AAG (Granted December 22, 2014) (12.3 kilometer move to move station closer to headquarters in a situation where all land between the transmitter site and the headquarters community was U.S. Forest Service land which did not permit tower construction.)

facilitated several of these applications. Of the applications that are granted, the one common attribute on most applications, although not necessarily intended, was that the service contour of the authorized facility and the service contour of the proposed facility would have some form of overlap. In this way, the Commission was processing LPFM applications in the same manner as FM translators.

77. The current rule is burdensome because it limits moves in regulations yet many compelling arguments have been made to waive the rule and permit longer moves when such a move is in the public interest. REC proposes to codify the LPFM minor change policy to mirror that of FM translators in respect to location moves only. If an LPFM station wishes to make a move, the 60 dBu contour of the currently authorized facility must overlap the 60 dBu contour of the proposed facility. REC feels that with this change in the rules, the Audio Division will discontinue giving waivers to §73.870(a) for long facility moves. Not only will this eliminate the need for waivers and provide LPFM stations with more flexibility to relocate, it will also put LPFM on a level playing field with FM translators.

I. §73.3598: Period of construction

78. *History of construction periods for LPFM* - When the Commission created LPFM, it was created with an 18-month construction period for all LP-100 construction permits including original permits and modifications.[107] At the time, the Commission stated that it was "meant to reflect the simpler construction requirements for these facilities".[108] As many of the LPFM permits from the first window series have constructed, the Commission realized their original findings to be overly-optimistic.[109] Prior to the *Third R&O,* the Commission put in place a temporary policy where LPFM stations can request extensions to their construction

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[107] - R&O at 187-189.

[108] - R&O at 187.

[109] - 3rd R&O at 38.

periods to 36 months.[110] This was in response to concerns that some LPFM stations would not be able to meet the 18-month construction deadline.[111] The Commission, in the *Third R&O*, kept LPFM construction periods at 18 months but codified the ability to extend the construction period to 36 months upon a showing of good cause.[112] However, while no distinction was made in the text of the *Third R&O* between "original" construction permits and modifications, the text of the codified rule reflects the policy only applying to "original" construction permits and not modifications.[113] This has created an issue for established LPFM stations that need to move. REC is aware of LPFM stations that have been able to get 18-month extensions to modification applications[114] and others that were not.[115]

79. *Shorter construction periods did not prevent speculation in 2013* - The original 18-month construction period rule was put in place in part to "[discourage] speculative or insufficiently thought out applications".[116] This mindset by the Commission only affected 8.9

[110] - See *Creation of a Low Power Radio Service,* Further Notice of Proposed Rulemaking, 20 FCC Rcd 6763 ("FNPRM") at 26.

[111] - Id.

[112] - 3rd R&O at 40.

[113] - See 47 C.F.R. §73.3598(a) ("...each *original* construction permit for the construction of a *new* LPFM station shall specify a period of eighteen months from the date of issuance of the construction permit within which construction shall be completed and application for license filed. A LPFM permittee unable to complete construction within the time frame specified in the original construction permit may apply for an eighteen month extension upon a showing of good cause. The LPFM permittee must file for an extension on or before the expiration of the construction deadline specified in the original construction permit...") *(emphasis added)*

[114] - See *KWSS Radio,* BPL-20110720ACE; *The Life Church Wood River Inc.,* BPL-20160926ABA; *Oregon Amateur Radio Club,* BPL-20130904ABT; *Rootswork, Inc.*, BPL-20130930AQF; *Living River Ministries, Inc.*, BPL-20141222AAO; *Operation Refuge, Inc.*, BPL-20141223ABU; *Utah Local Radio,* BPL-20150526AAJ and *Cherokee FM Radio*, BPL-20151221CEL.

[115] - See *Quality Radio Partners*, BPL-20160126ADY, electronic mail from Gary Loehrs to Michelle Bradley denying an 18-month construction permit extension citing §73.3598(a) applying to only original construction permits.

[116] - NPRM at 78.

percent of all granted original construction permits.[117] In fact, over 48 percent of all LPFM original construction permit grantees have requested the extension, of those, nearly half successfully completed construction and over one-third are still in active construction.

80. *The public interest favors extending the LPFM construction period* - With the realities of today's LPFM service, because of second adjacent channel waivers, the original thought of a 2000-era "easy" LP-100 installation is just not plausible. Because of specific antenna height requirements and the need to use larger multi-bay antennas in order to bring LPFM to some urban areas, LPFM permittees have had to move to large commercial towers and subject to similar construction conditions that FM translators are currently facing. As many LPFM stations are facing the same construction-related issues that FM translators are facing and in an effort to bring LPFM to a closer playing field with FM translators, we are proposing that §73.3598 be modified to remove the LPFM specific language and make LPFM construction periods consistent with TV, AM, FM, International Broadcast, Low Power TV, TV translator, TV booster, FM translator and FM booster stations with a 36-month construction period. This 36-month period should cover both original permits and modifications. This will also eliminate the administrative burden on Commission staff to manually extend expiration dates on granted permits. We stress, like with full-power and FM translator construction permits, this 36-month period cannot be extended except where permitted under existing tolling policy.[118]

J. Call Signs

[117] - As of June 9, 2017, the following is a breakdown of the outcome of original construction permit (CP) applications filed in the 2013 LPFM window:

Granted active CP, still constructing within the first 18 months.	86	4.4%
Granted active CP, requested the 18 month extension.	330	16.8%
Expired CP, permittee did not request the 18 month extension.	176	8.9%
Expired CP despite permittee requesting the 18 month extension.	152	7.7%
Applicants able to complete construction within 18 months	749	38.0%
Applicants needing the 18 month extension in order to complete.	467	23.7%
License cancelled after application granted	9	0.5%

[118] - See 47 C.F.R. §73.3598(b). Construction permits can be tolled due to natural disasters, grants subject to an administrative or judicial review and delays caused by international coordination.

81. When LPFM was created, the Commission decided to use call signs similar to those available to LPTV stations (with the "-LP" suffix).[119] This was despite some who commented supporting that "ordinary FM call signs be assigned to new LPFM stations".[120] Over the past 17 years and especially in the past few years, REC has heard from many LPFM licensees questioning why LPFM stations needed to be "branded" separately on the air from their full-power counterparts. REC has heard from the LPFM community that the "-LP" suffix does raise questions and confusion from listeners and potential underwriters.

82. While the Commission tried to design LPFM to mirror the LPTV service in some aspects of the service, the test of time has proven that the *spoken* word has far more impact on the public than the call sign written on the screen once per hour on LPTV stations.[121] Unlike in LPTV and most TV, the call sign is more likely to be the primary identity in radio, especially low-power and full-power stations with a community focus. We also note that Class-D FM stations, the "original LPFM" are treated the same as full-service FM stations where it comes to call signs. REC is also aware of situations that took place following the grants from the 2013 filing window where LPFM stations took the "-LP" version of call signs without consent of the primary call sign holder.

83. With thousands of spare call signs still available, the use of "-LP" over the normal method of assigning call signs to LPFM stations consistent with FM stations is not intended to conserve call sign space. Listeners, potential listeners and potential underwriters to LPFM stations really have no specific reason to know whether a station is an LPFM station as opposed to a Class D FM or a lower-powered Class A NCE station yet LPFM stations are being subjected to this "stamp" that singles these stations from others.[122]

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[119] - R&O at 178.

[120] - Id.

[121] - We also note that with the conversion of LPTV stations from analog to digital, the use of "-LP" appears to be phasing out as it was used to identify the analog facility and being replaced with "-LD" to identify the digital facility.

[122] - This is not an issue for FM translators as those stations do not originate their own programming and can be identified through methods other than verbally over the air. (See 47 C.F.R. §74.1283(c)(2))

84. As there is no true compelling reason why LPFM stations should be identified differently than secondary Class D FM stations and full-service FM stations, we are proposing that Commission amend the rules to permit LPFM stations to be identified in a manner consistent with secondary Class D FM and full-service FM stations. Existing LPFM stations that are using call signs have not been used in other services should have the option and opportunity to remove the "-LP" suffix (for example, WREC-LP would become WREC).[123] LPFM stations that are using a call sign that is also used in a different radio service must maintain the "–LP" suffix. In order to drop the "-LP" suffix, they would be required to change call signs.

K. Use of certified transmitters

85. One of the other big issues that some LPFM stations has directed to REC is related to the requirement that transmitters be "type certified" by the Office of Engineering and Technology.[124] This issue presents a frustration for us because it restricts LPFM station to using lab certified equipment and precludes them from using older equipment including transmission equipment donated by other broadcast stations. It also, technically prohibits them from using that equipment as emergency backup without the risk of enforcement action.[125]

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[123] - For administrative convenience, LPFM stations that are using call signs not being used in other services should have the "-LP" suffix removed from their CDBS/LMS records. If an LPFM station wishes to use continue on-air identity with the "-LP" suffix during the legal identification, they should be permitted to do so. REC recognizes that some LPFM stations are using pre-recorded liners and ID jingles that may include the "-LP" suffix and to be subjected to a mandatory of the "-LP" suffix from their legal identification obligations would be burdensome. In the same manner, if the LPFM station is the only user of the call sign, we see no reason why the station can't append "-FM" to their call sign for the purpose of on-air legal identification. However, if an LPFM station "loans" their call sign to a TV or AM station, the LPFM should be suffixed "-FM" with a requirement that "-FM" be used in the legal ID.

[124] - Also see R&O at 116.

[125] - R&O at 116 ("We emphasize that the use of non-type certified transmitters will not be tolerated. Use of non-type certified transmitters will be subject the licensee to enforcement action including, but not limited to, fines.")

86. On the other side of the coin is the fact that non-type certified equipment, especially equipment imported from China is widely available in the United States and even fulfilled by major corporations such as Amazon.[126] This equipment is purely for pirate radio use. In the past, REC had received inquiries from a couple of LPFM permittees questioning if this equipment can be legally used on LPFM. We are aware of one case where in an informal objection, the objector stated the applicant was using an uncertified transmitter. Despite the recent rise in radio piracy cases, we are not seeing the Commission's Enforcement Bureau cracking down on Amazon.com or other companies that are marketing uncertified equipment in violation of Section 302a(b) of the Communications Act and §2.803(b) of the Commission's Rules.[127]

87. The Commission's lack of enforcement is substantially holding back LPFM's ability to use older equipment under the supervision of those with the engineering knowledge to install, operate and monitor it, just like with any other station. This certified transmitter requirement has reduced customer choice and has resulted in increased prices. This requirement may also stifle the development of new transmitter models as there would be less of an incentive to get it lab certified for LPFM. If in the future, LPFM is upgraded to a 250-watt service, we will need 600-watt class transmitters that could be used on the LPFM service.

88. With reluctance and some regret, we just cannot support an elimination of the type certification rule at this moment because of the ongoing problem with pirate broadcast equipment being actively marketed by major websites like Amazon.com and the lack of enforcement to address it. Most LPFM broadcasters are qualified broadcasters, many with engineering experience. The elimination of the certification requirement is in the best interest of LPFM and brings the service to an equal playing field with the rest of the broadcast community.

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[126] - Amazon fulfills for "CZH FM Transmitter". This seller has currently listed a 15 watt FM transmitter for $85, A 25 watt FM transmitter for $300 and various other equipment manufactured by CZH and FMUSER. This merchant's storefront can be found at this URL: https://www.amazon.com/s?marketplaceID=ATVPDKIKX0DER&me=A3E77YQBVRNT52&merchant=A3E77YQBVRNT52&redirect=true

[127] - 47 U.S.C. §302a(b), also 47 C.F.R. §2.803(b). Also see *Ramsey Electronics, Inc.* Notice of Apparent Liability for Forfeiture, File No. EB-04-SE-244 (2006).

While we are not asking for a rule change at this time, we do feel that the Commission start an inquiry into the availability of uncertified "pirate" radio transmitters and LPFM's need to use type-accepted but not necessarily type-certified equipment such as older transmitters.

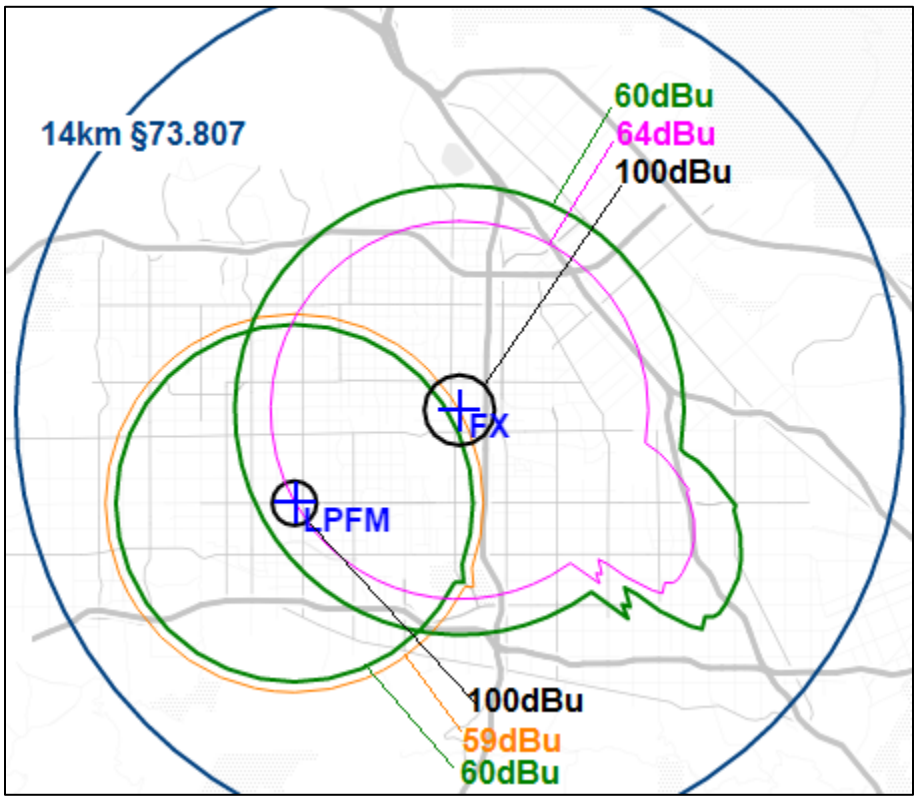
III. FM TRANSLATORS AND FM BOOSTERS

A. FM translators protecting LPFM stations

89. Since the *R&O*, FM translator stations have been required to protect LPFM stations on co-channel and first-adjacent channels. No explanation was given to why FM translators were not required to protect LPFM stations on second adjacent channels. We note that at the time, FM translators (and 100 watt LPFM stations) were able to displace LP10 "microradio" stations. The reasoning around this blanket waiver of the second-adjacent channel for FM translators towards LPFM is puzzling, especially LPFM's pre-RBPA requirement that it protects the second-adjacent channel of FM translators. This disparity is allowing FM translators to move closer to LPFM stations including situations where the translator is in a position where it places a fairly weak field strength (such as 63 dBu) at the LPFM site. Not only does this cause a §73.807 short-spacing but it now places the LPFM station in a situation where if it desired to move or even change antenna height, it would have to make a showing that it is protecting the second-adjacent channel translator despite that translator not being under any scrutiny when the tables were turned and the translator can come in anywhere near on inside the LPFM's protected contour.

90. In this example below, we have a hypothetical situation where the LPFM station is incumbent and a subsequent application was filed to place an FM translator on a second-adjacent channel at the site marked "FX". Because there is no second-adjacent channel spacing required to an LPFM station, the translator can disregard the fact that its 100 dBu interfering contour overlaps into the 60 dBu protected contour of the LPFM. Now that the LPFM is second-adjacent channel short spaced, it will now be required to make a second adjacent channel showing regardless of where it moves. Since the LPFM has been operating with a single bay

antenna (because of no previous second adjacent channel short-spacing), a simple move across the street could cost the LPFM station over $30,000 in a multi-bay antenna in order to address the interference.



91. If FM translators were required to protect LPFM stations, the translator would have contour overlap and a 59 dBu field strength at the transmitter site. The translator would have to use a directional pattern to protect the LPFM's 60 dBu contour or it will need to demonstrate that the translator's 99 dBu interfering contour does not reach any occupied areas. Even if the translator can make a showing of non-interference, the LPFM would be short-spaced and have to overcome a 64 dBu second-adjacent translator but in this situation, the translator is not always likely to achieve proper protection so this facility would not be proposed on the second-adjacent channel to the LPFM.

92. To look at the how we can resolve this disparity, we need to first look at the possibility of just removing the requirement that LPFM stations protect translators on second-

adjacent channels to come in line with the FM translator rule. In the *2001 DC Appropriations Act* as passed by the RBPA, the Commission was ordered to "prescribe minimum distance separations for third-adjacent channels (as well as for co-channels and first- and second-adjacent channels."[128] Later with the passing of the LCRA, the *2001 DC Appropriations Act* language was changed to a requirement to just prescribe protection for co-channels and first- and second-adjacent channels.[129] Distance separation would be moved to Section 3 of the LCRA and as we have already argued, applies only to "full-service" FM stations. With that said, it is REC's interpretation of the LCRA that the Commission does not have the jurisdiction to remove any form of second-adjacent channel protection to translators. As we had stated, Section 3 of the LCRA does allow an LPFM station to protect a translator using contour overlap.[130]

93. The bottom line is that the current disparity between LPFM stations and FM translators imposes a "de-facto" primary service favoring them over LPFM which can be interpreted as a possible violation of §5(3) of the LCRA.[131] Consistent with our interpretation of the *2001 DC Appropriations Act,* we cannot petition to remove LPFM's second adjacent channel spacing requirement in respect to FM translators but we can petition for the FCC to amend §74.1204(a)(4) to include a second-adjacent channel spacing requirement for FM translators, LPFM boosters and cross-service boosters.

B. Cross-service FM boosters

94. Prior to the Commission's decisions on *Strategic* and *Laguna*, REC had received inquiries from AM licensees with cross-service translators to determine the potential for FM boosters that can be used by cross-service translators in areas where the 60 dBu contour is

[128] - RBPA at §632(a)(1)(A).

[129] - LCRA at §2.

[130] - LCRA §3(b)(2)(A) already indirectly permits the use of contour overlap in respect to full-service FM stations and with the lack of mention in §3(b)(1), towards FM translator stations.

[131] - LCRA at §5(3) ("FM translator stations, FM booster stations, and low-power FM stations remain equal in status and secondary to existing and modified full-service FM stations.")

challenged by terrain. REC can envision cross-service FM boosters being placed in mountain passes and other terrain-challenged area. Compared to LPFM, most cross-service translators have service contours significantly larger than LPFM thus opening more opportunities for boosters. Currently, these AM licensees are burdened by losing listeners in these areas, areas that they are otherwise entitled to. REC feels that amending the rules to allow for LPFM boosters and cross-service boosters is in the public interest.

V. CONCLUSION

95. Since the LPFM service was created in 2000, the service has evolved and matured. Other than two push-starts from Congress, the rules have not substantially changed since then, thus many 2000-era rules that are designed for simplification or out of fear of the unknown still exist in these rules. After the implementation of these rules, a natural increase in maximum power to 250 watts where available and a major restructuring of the applicant qualifications are in order. Since those issues were not necessarily in scope for this proceeding, we will explore these options on a future rulemaking. In these *Comments,* REC has demonstrated major disparity between the LPFM rules and those regulating FM translators. Our comments also make recommendations for rule changes that are not only in the public interest, are technically feasible but also comply with the LCRA. REC is collecting shows of interest for new LPFM stations at http://weNEEDradio.org and following the second cross-service (2017) window, we would like to see the Commission open an LPFM filing window. As long as translator stations outnumber LPFMs, there will always be a disparity. After the cross-service windows, the community need dictates LPFM and the ability to place the service on a periodic window schedule in order to meet the needs of the community.

Respectfully submitted,

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June 26, 2017

APPENDIX A

REC proposed changes to rules

Part 73 of Title 47 of the U.S. Code of Federal Regulations is proposed to be amended to read as follows:

Part 73 – Radio Broadcast Services

1. Section 73.807 is proposed to be modified, as follows:

§73.807 Minimum distance separation between stations.

Minimum separation requirements for LPFM stations are listed in the following paragraphs. Except as noted below, an LPFM station will not be authorized unless the co-channel, and first- and second-adjacent channel separations are met. An LPFM station need not satisfy the third-adjacent channel separations listed in paragraphs (a) through (c) in order to be authorized.

Minimum distances for co-channel and first-adjacent channel are separated into two columns. The left-hand column lists the required minimum separation to protect other stations and the right-hand column lists (for informational purposes only) the minimum distance necessary for the LPFM station to receive no interference from other stations assumed to be operating at the maximum permitted facilities for the station class. For second-adjacent channel, the required minimum distance separation is sufficient to avoid interference received from other stations.

(a)(1) An LPFM station will not be authorized initially unless the minimum distance separations in the following table are met with respect to authorized FM stations, applications for new and existing FM stations filed prior to the release of the public notice announcing an LPFM window period, and vacant FM allotments. LPFM modification applications must either meet the distance separations in the following table or, if short-spaced, not lessen the spacing to subsequently authorized stations.

Station Class Protected by LPFM	Co-channel Minimum Separation (km)		First-adjacent Channel Minimum Separation (km)		Second and third adjacent Channel Minimum Separation (km)
	Required	For No Interference Received	Required	For No Interference Received	Required
D	24	24	13	13	6
A	59	92	53	56	29
B1	77	119	70	74	46
B	99	143	91	97	67
C3	69	119	64	67	40
C2	82	143	77	84	53
C1	103	178	97	111	73
C0	114	193	108	130	84
C	122	203	116	142	93

(a)(2) LPFM stations must satisfy the second-adjacent channel minimum distance separation requirements of paragraph (a)(1) of this section with respect to any third-adjacent channel FM station that, as of [INSERT NEW DATE], broadcasts a radio reading service via a subcarrier frequency.

(a)(3) Applications for LPFM stations must also satisfy the contour overlap requirements in §73.815(a) in respect to full-service FM stations and Class D (secondary) noncommercial educational FM stations.

(b)(1) In addition to meeting or exceeding the minimum separations in paragraph (a), new LPFM stations will not be authorized in Puerto Rico or the Virgin Islands unless the minimum distance separations in the following tables are met with respect to authorized or proposed FM stations:

Station Class Protected by LP100	Co-channel Minimum Separation (km)		First-adjacent Channel Minimum Separation (km)		Second and third adjacent Channel Minimum Separation (km)
	Required	For No Interference Received	Required	For No Interference Received	Required
A	72	111	66	70	42
B1	84	128	78	82	53
B	126	179	118	123	92

Note: Minimum distance separations towards "grandfathered" superpowered Reserved Band stations, subsections (a), (b), and (c) above :

Full service FM stations operating within the reserved band (Channels 201-220) with facilities in excess of those permitted in § 73.211(b)(1) or § 73.211(b)(3) shall be protected by LPFM stations in accordance with the minimum distance separations for the nearest class as determined under § 73.211. For example, a Class B1 station operating with facilities that result in a 60 dBu contour that exceeds 39 kilometers but is less than 52 kilometers would be protected by the Class B minimum distance separations. Class D stations with 60 dBu contours that exceed 5 kilometers will be protected by the Class A minimum distance separations. Class B stations with 60 dBu contours that exceed 52 kilometers will be protected as Class C1 or Class C stations depending upon the distance to the 60 dBu contour. No stations will be protected beyond Class C separations.

(c)(1) In addition to meeting the separations specified in paragraphs (a) and (b), LPFM applications must meet the minimum separation requirements in the following table with respect to authorized FM translator stations, cutoff FM translator applications, and FM translator applications authorized LPFM stations, LPFM station applications that were timely-filed within a previous window, and other LPFM and FM translator stations filed prior to the release of the Public Notice announcing the LPFM window period.

Distance to 60 dBu	Co-channel Minimum Separation (km) For No Interference Required	Received	First-adjacent Channel Minimum Separation (km) For No Interference Required	Received	Second and third adjacent Channel Minimum Separation (km) Required
FM translators: 13.3 km or greater	39	67	28	35	21
FM translators: Greater than 7.3 km, but less than 13.3 km	32	51	21	26	14
FM translators: Less than 7.3 km	26	30	15	16	8
All LPFM stations	24	24	14	14	None

(c)(2) LPFM stations not meeting the separations specified in subparagraph (c)(1) will be accepted for filing in accordance with §73.815(b).

(d) Existing LPFM stations which do not meet the separations in paragraphs (a) through (c) of this section may be relocated provided that the separation to any short-spaced station is not reduced and for LPFM stations that do not meet the separations in paragraphs (a) and (b) of this section, also in accordance with §73.815 of this subpart.

* * * * *

(g) * * * * *

(1) * * *

(2) * * *

(3) * * *

(4) * * *

(5)(i) LPFM stations located within 125 kilometers of the Mexico border are limited to 50 watts (0.05kW) ERP, a 60 dBu service contour of 8.7 kilometers and

a 34 dBu interfering contour of 32 kilometers in the direction of the Mexican border. LPFM stations may operate up to 100 watts in all other directions.

(ii) LPFM stations located between 125 kilometers and 320 kilometers from the Mexican border may operate in excess of 50 watts, up to a maximum ERP of 100 watts. However, in no event shall the location of the 60 dBu contour lie within 116.3 km of the Mexican border.

(iii) Applications for LPFM stations within 320 km of the Canadian border may employ an ERP of up to a maximum of 100 watts. The distance to the 34 dBu interfering contour may not exceed 60 km in any direction.

2. Section 73.809 is proposed to be modified, as follows:

§73.809 Interference protection to full service FM stations.

(a) * * * * *

(1) * * *

(2) * * *

(3) Any area of the community of license of such full service station that is predicted to receive at least a 1 mV/ m (60 dBu) signal. Predicted interference shall be calculated in accordance with the ratios set forth in § 73.215 paragraphs (a)(1) and (a)(2).

* * * * *

3. Section 73.811 is proposed to be modified to move information about periodic announcements from paragraph (b) to paragraph (a):

§73.810 Third adjacent channel complaint and license modification procedure

(a) * * * * *

(1) * * *

(2) * * *

(3) * * *

(4) *Periodic Announcements*.

(a) For a period of one year from the date of licensing of a new LPFM station that is constructed on a third-adjacent channel and does not satisfy

the third-adjacent channel minimum distance separations set forth in Section 73.807, such LPFM station shall broadcast periodic announcements. The announcements shall, at a minimum, alert listeners of the potentially affected third-adjacent channel station of the potential for interference, instruct listeners to contact the LPFM station to report any interference, and provide contact information for the LPFM station. The announcements shall be made in the primary language(s) of both the new LPFM station and the potentially affected third-adjacent channel station(s). Sample announcement language follows:

On (date of license grant), the Federal Communications Commission granted (LPFM station's call letters) a license to operate. (LPFM station's call letters) may cause interference to the operations of (third-adjacent channel station's call letters) and (other third-adjacent channel stations' call letters). If you are normally a listener of (third-adjacent channel station's call letters) or (other third-adjacent channel station's call letters) and are having difficulty receiving (third-adjacent channel station call letters) or (other third-adjacent channel station's call letters), please contact (LPFM station's call letters) by mail at (mailing address) or by telephone at (telephone number) to report this interference.

(b) During the first thirty days after licensing of a new LPFM station that is constructed on a third-adjacent channel and and does not satisfy the third-adjacent channel minimum distance separations set forth in Section 73.807, the LPFM station must broadcast the announcements specified in paragraph (b)(2)(a) at least twice daily. The first daily announcement must be made between the hours of 7 a.m. and 9 a.m., or 4 p.m. and 6 p.m. The LPFM station must vary the time slot in which it airs this announcement. For stations that do not operate at these times, the announcements shall be made during the first two hours of broadcast operations each day. The second daily announcement must be made outside of the 7 a.m. to 9 a.m. and 4 p.m. to 6 p.m. time slots. The LPFM station must vary the times of day in which it broadcasts this second daily announcement in order to ensure that the announcements air during all parts of its broadcast day. For stations that do not operate at these times, the announcements shall be made during the first two hours of broadcast operations each day. For the remainder of the one year period, the LPFM station must broadcast the announcements at least twice per week. The announcements must be broadcast between the hours of 7 a.m. and midnight. For stations that do not operate at these times, the announcements shall be made during the first two hours of broadcast operations each day.

(c) Any new LPFM station that is constructed on a third-adjacent channel and and does not satisfy the minimum distance separations set forth in Section 73.807 must:

(1) notify the Audio Division, Media Bureau, and all affected stations on third-adjacent channels of an interference complaint. The notification must be made electronically within 48 hours after the receipt of an interference complaint by the LPFM station; and

(2) cooperate in addressing any third-adjacent channel interference.

(b) LPFM Stations Licensed at Locations That Satisfy Third-Adjacent Channel Minimum Distance Separations. An LPFM station licensed at a location that satisfies the third-adjacent channel minimum distance separations set forth in Section 73.807 is subject to the following provisions:

(1) Such an LPFM station is required to provide copies of all complaints alleging that its signal is causing third-adjacent channel interference to or impairing the reception of the signal of a full power FM, FM translator or FM booster station to such affected station and to the Commission.

(2) A full power FM, FM translator or FM booster station shall review all complaints it receives, either directly or indirectly, from listeners regarding alleged third-adjacent channel interference caused by the operations of such an LPFM station. Such full power FM, FM translator or FM booster station shall also identify those that qualify as bona fide complaints under this section and promptly provide such LPFM station with copies of all bona fide complaints. A bona fide complaint:

(a) Must include current contact information for the complainant;

(b) Must state the nature and location of the alleged third-adjacent channel interference and must specify the call signs of the LPFM station and affected full power FM, FM translator or FM booster station, and the type of receiver involved; and

(c) Must be received by either the LPFM station or the affected full power FM, FM translator or FM booster station within one year of the date on which the LPFM station commenced broadcasts with its currently authorized facilities.

(3) The Commission will accept bona fide complaints and will notify the licensee of the LPFM station allegedly causing third-adjacent channel interference to the signal of a full power FM, FM translator or FM booster station of the existence of the alleged interference within 7 calendar days of the Commission's receipt of such complaint.

(4) Such an LPFM station will be given a reasonable opportunity to resolve all complaints of third-adjacent channel interference within the protected contour of

the affected full power FM, FM translator or FM booster station. A complaint will be considered resolved where the complainant does not reasonably cooperate with an LPFM station's remedial efforts. Such an LPFM station also is encouraged to address all other complaints of third-adjacent channel interference, including complaints based on interference to a full power FM, FM translator or FM booster station by the transmitter site of the LPFM station at any distance from the full power, FM translator or FM booster station.

(5) In the event that the number of unresolved complaints of third-adjacent channel interference within the protected contour of the affected full power FM, FM translator or FM booster station plus the number of complaints for which the source of third-adjacent channel interference remains in dispute equals at least one percent of the households within one kilometer of the LPFM transmitter site or thirty households, whichever is less, the LPFM and affected stations must cooperate in an "on-off" test to determine whether the third-adjacent channel interference is traceable to the LPFM station.

(6) If the number of unresolved and disputed complaints of third-adjacent channel interference within the protected contour of the affected full power, FM translator or FM booster station exceeds the numeric threshold specified in subsection (b)(4) following an "on-off" test, the affected station may request that the Commission initiate a proceeding to consider whether the LPFM station license should be modified or cancelled, which will be completed by the Commission within 90 days. Parties may seek extensions of the 90-day deadline consistent with Commission rules.

(7) An LPFM station may stay any procedures initiated pursuant to paragraph (b)(5) of this section by voluntarily ceasing operations and filing an application for facility modification within twenty days of the commencement of such procedures.

4. Section 73.811 is proposed to be modified, as follows:

§73.811 LPFM power and antenna height requirements

* * * * *

(c) LPFM stations located within 320 kilometers of the Mexican border may operate with facilities of less than the minimum defined in paragraph (b) of this section upon showing that operation at such facilities is necessary in accordance with §73.807(g)(5) of this subpart.

5. A new section 73.815 is proposed to be added, as follows:

§73.815 Contour protection.

(a) In addition to meeting or exceeding the minimum separations in §73.807(a) and §73.807(b) in respect to commercial full-service FM stations, noncommercial full-service FM stations and Class D (secondary) noncommercial educational FM stations, an application for an LPFM station will not be accepted for filing if it would involve overlap of predicted field contours with any other authorized full-service FM station and Class D (secondary) noncommercial educational FM broadcast stations; of if it would result in increased overlap as set forth:

(1) Commercial Class B FM Stations (Protected Contour: 0.5 mV/m)

Frequency separation	Interference contour of proposed LPFM station	Protected contour of commercial Class B station
Cochannel	0.05 mV/m (34 dBu)	0.5 mV/m (54 dBu)
200 kHz	0.25 mV/m (48 dBu)	0.5 mV/m (54 dBu)

(2) Commercial Class B1 FM Stations (Protected Contour: 0.7 mV/m)

Frequency separation	Interference contour of proposed LPFM station	Protected contour of commercial Class B station
Cochannel	0.07 mV/m (37 dBu)	0.7 mV/m (57 dBu)
200 kHz	0.35 mV/m (51 dBu)	0.7 mV/m (57 dBu)

(3) Any other classes of full-service FM stations and Class D (Secondary) noncommercial educational FM broadcast stations (Protected Contour: 1 mV/m)

Frequency separation	Interference contour of proposed LPFM station	Protected contour of commercial Class B station
Cochannel	0.1 mV/m (40 dBu)	1 mV/m (60 dBu)
200 kHz	0.5 mV/m (54 dBu)	1 mV/m (60 dBu)

(b) As an alternative to meeting or exceeding the minimum separations in §73.807(c) in respect to authorized FM translator stations, cutoff FM translator applications, and FM translator applications authorized LPFM stations, LPFM station applications that were timely-filed within a previous window, and other LPFM and FM translator stations filed prior to the release of the Public Notice announcing the LPFM window period; an application for an LPFM station will not be accepted for filing if it would involve overlap of predicted field contours with any other authorized FM translator stations, cutoff FM translator applications, and FM translator applications authorized LPFM stations, LPFM station applications that were timely-filed within a previous window, and other LPFM and FM translator stations filed prior to the release of the Public Notice announcing the LPFM window period; of if it would result in increased overlap as set forth:

(1) FM Translator (Protected Contour: 1 mV/m)

Frequency separation	Interference contour of proposed LPFM station	Protected contour of commercial Class B station
Cochannel	0.1 mV/m (40 dBu)	1 mV/m (60 dBu)
200 kHz	0.5 mV/m (54 dBu)	1 mV/m (60 dBu)
400 kHz	100 mV/m (100 dBu)	1 mV/m (60 dBu)

(2) LPFM Station (Protected Contour: 1 mV/m)

Frequency separation	Interference contour of proposed LPFM station	Protected contour of commercial Class B station
Cochannel	0.1 mV/m (40 dBu)	1 mV/m (60 dBu)
200 kHz	0.5 mV/m (54 dBu)	1 mV/m (60 dBu)

(c) The following standards must be used to compute the distances to the pertinent contours:

(1) The distances to the protected contours are computed using Figure 1 of § 73.333 [F(50,50) curves] of this chapter.

(2) The distances to the interference contours are computed using Figure 1a of § 73.333 [F(50,10) curves] of this chapter. In the event that the distance to the contour is below 16 kilometers (approximately 10 miles), and therefore not covered by Figure 1a, curves in Figure 1 must be used.

(3) The effective radiated power (ERP) to be used is the maximum ERP of the main radiated lobe in the pertinent azimuthal direction. If the transmitting antenna is not horizontally polarized only, either the vertical component or the horizontal component of the ERP should be used, whichever is greater in the pertinent azimuthal direction.

(4) The antenna height to be used is the height of the radiation center above the average terrain along each pertinent radial, determined in accordance with § 73.313(d) of this chapter.

6. Section 73.816 is proposed to be modified, as follows:

§73.816 Antennas

* * * * *

(c) Directional antennas may be utilized LPFM as set forth:

(1) Public safety and transportation permittees and licensees, eligible pursuant to § 73.853(a)(ii), in connection with the operation of a Travelers' Information Service (TIS)

(2) LPFM permittees and licensees proposing a waiver of the second-adjacent channel spacing requirements of Section 73.807 may utilize directional antennas for the sole purpose of justifying such a waiver.

(3) LPFM permittees and licensees proposing operation involving contour overlap protections in accordance with §73.815 of this subpart may utilize directional antennas in order to demonstrate compliance.

(4) LPFM permittees and licensees proposing operation within 320 kilometers of the Mexican or Canadian border in accordance with §73.807(g)(5) of this subpart.

(d) *Directional antennas.*

(1) Composite antennas and antenna arrays may be used where the total ERP does not exceed the maximum determined in accordance with §73.811(a) of this subpart.

(2) Either horizontal, vertical, circular or elliptical polarization may be used provided that the supplemental vertically polarized ERP required for circular or elliptical polarization does not exceed the ERP otherwise authorized. Either clockwise or counterclockwise rotation may be used. Separate transmitting antennas are permitted if both horizontal and vertical polarization is to be provided.

(3) All applications must comply with § 73.316, paragraphs (d) and (e) of this chapter.

7. Section 73.825 is proposed to be modified, as follows:

§73.825 Protection to reception of TV channel 6

The provisions of this section apply to all applications for construction permits for new or modified facilities for a LPFM station on Channels 201-220, unless the application is accompanied by a written agreement between the LPFM applicant and each affected TV Channel 6 broadcast station, Low Power TV and Class-A TV licensee or permittee concurring with the proposed LPFM facility.

(a) Except as provided in paragraphs (b) and (c) of this section, LPFM stations will be authorized on Channels 201 through 220 if the pertinent minimum separation distances in the following table are met with respect to all full power TV Channel 6 stations as well as in respect to all Low Power TV and Class-A TV stations which are authorized to operate on Channel 6:.

FM Channels	**Distance to TV Channel 6 (kilometers)**	**Distance to LPTV/Class-A Channel 6 (kilometers)**
201	140	98
202	138	97
203	137	95
204	136	94
205	135	93
206 through 211	133	91
212 through 214	132	90
215	131	90
216 through 218	131	89
219 through 220	130	89

(b) *Collocated stations.* An application for a LPFM station operating on Channels 201-220 and located at 0.4 kilometers or less from a TV Channel 6 station will be accepted if it includes a certification that the applicant has coordinated the antenna with the affected TV station.

(c) *Contour overlap.* Except as provided in paragraphs (a) and (b) of this section, an application for a LPFM station operating on Channels 201-220 will not be accepted if the proposed operation will involve overlap of its interference field strength contour with any TV Channel 6 station's Grade B contour, as set forth below.

(1) The distances to the TV Channel 6 Grade B (47 dBu) field strength contour will be predicted according to the procedures specified in §73.684 of this chapter, using the F(50,50) curves in §73.699, Figure 9 of this chapter.

(2) The distances to the acceptable LPFM interference contour will be predicted according to the procedures specified in §73.815(c) of this part.

(3) The applicable LPFM interference contours are as follows:

FM Channels	**Interference contour F(50,10) curves (dBu)**
201	54
202	56
203	59
204	62
205	64
206	69
207	73
208	73
209	73
210	73
211	73
212	74
213	75
214	77
215	78
216	80
217	81
218	85
219	88
220	90

8. Section 73.860 is proposed to be modified as follows

§73.860 Cross-ownership.

* * * * *

(b) A party that is not a Tribal Applicant, as defined in §73.853(c), may hold attributable interests in one LPFM station and no more than two FM translator, two FM booster stations or one FM translator and one FM booster station provided that the following requirements are met:

(1) The FM translator and/or booster station(s), at all times, synchronously rebroadcasts the primary analog signal of the commonly-owned LPFM station or, if the commonly-owned LPFM station operates in hybrid mode, synchronously rebroadcasts the digital HD-1 version of the LPFM station's signal;

(2) The transmitting antenna of the FM translator and/or booster station(s) is located within 16.1 km (10 miles) for LPFM stations located in the top 50 urban markets and 32.1 km (20 miles) for LPFM stations outside the top 50 urban markets of either the transmitter site of the commonly-owned LPFM station or the reference coordinates for that station's community of license.

(3) The FM booster station(s) 60 dBu service contour must remain entirely within the 60 dBu service contour of the commonly-owned LPFM station.

* * * * *

9. Section 73.865 is proposed to be replaced as follows

§73.865 Assignment and transfer of LPFM authorizations.

(a) *Assignment/Transfer:* No party may assign or transfer an LPFM license or permit if:

(1) Consideration promised or received exceeds the depreciated fair market value of the physical equipment and facilities; and/or

(2) The transferee or assignee is incapable of satisfying all eligibility criteria that apply to a LPFM licensee.

(3) To demonstrate compliance with subparagraph (a)(1), the assignment application must include the amount of consideration for the transaction a complete detailed schedule including a description and value of all physical equipment and facilities associated with the transaction.

(4)(i) Within the first four (4) years of licensed operation or any time during the construction period, LPFM stations that were granted based on in accordance with §73.872 of this subpart may only be assigned to organizations, which on the date of the filing of the original construction permit application would meet or exceed the number of points as determined under §73.872(b).

(ii) LPFM stations selected in accordance with §73.872(d)(3) may only be assigned to an organization with a verifiable local presence date that is older than the granted group with the latest local presence date at the time of the grant of the original construction permit application.

(b) A change in the name of an LPFM licensee where no change in ownership or control is involved may be accomplished by written notification by the licensee to the Commission.

(c) *Holding period on original construction permits:* An original construction permit may not be assigned for 18 months from the date of original permit grant. The assignee must be prepared to complete construction of the station. Unless otherwise permitted in

accordance with §73.3598(b), requests for further extensions of granted construction permits will not be entertained.

(d) Transfers of control involving a sudden change of more than 50 percent of an LPFM's governing board shall not be deemed a substantial change in ownership or control, subject to the filing of an FCC Form 316.

10. Section 73.870 is proposed to be modified as follows

§73.870 Processing of LPFM broadcast station applications.

(a) A minor change for an LPFM station authorized under this subpart is limited to transmitter site relocations where the 60 dBu contour of the authorized facility overlaps the 60 dBu contour of the proposed facility. These distance limitations do not apply to amendments or applications proposing transmitter site relocation to a common location filed by applicants that are parties to a voluntary time-sharing agreement with regard to their stations pursuant to § 73.872 paragraphs (c) and (e). These distance limitations also do not apply to an amendment or application proposing transmitter site relocation to a common location or a location very close to another station operating on a third-adjacent channel in order to remediate interference to the other station; provided, however, that the proposed relocation is consistent with all localism certifications made by the applicant in its original application for the LPFM station. Minor changes of LPFM stations may include:

(1) Changes in frequency to adjacent or I.F. frequencies (+/- 1, 2, 3, 53 or 54 channels) or, upon a technical showing of reduced interference, to any frequency; and

(2) Amendments to time-sharing agreements, including universal agreements that supersede involuntary arrangements.

* * * * * *

* * * * * *

11. Section 73.871 is proposed to be modified as follows

§73.871 Amendment of LPFM broadcast station applications.

* * * * * *

(c) * * * * * *

(1) Filings subject to paragraph (c)(5) of this section, site relocations that involve overlap between the 60 dBu service contour of the currently authorized or

originally-proposed facility and the 60 dBu service contour of the newly-proposed facility;

(2) Changes in ownership at where at least 50 percent of the individuals named as parties on the original application are retained, subject to paragraph (d) of this section;

(3) Universal voluntary time-sharing agreements to apportion vacant time among the licensees;

(4) Other changes in general and/or legal information;

(5) Filings proposing transmitter site relocation to a common location submitted by applications that are parties to a voluntary time-sharing agreement with regard to their stations pursuant to §73.872 (c) and (e); and

(6) Filings proposing transmitter site relocation to a common location or a location very close to another station operating on a third-adjacent channel in order to remediate interference to the other station.

(d) Amendments that change the ownership in accordance with paragraph (c)(2) of this section must include supporting documentation such as revised articles of incorporation that reflect the change in ownership.

(e) Unauthorized or untimely amendments are subject to return by the FCC's staff without consideration.

12. Section 73.3598 is proposed to be modified, as follows:

§73.3550 Requests for new or modified call sign assignments.

* * * * * *

(f) Only four-letter call signs (plus an LP, FM, TV or CA suffix, if used) will be assigned. However, subject to the other provisions of this section, a call sign of a station may be conformed to a commonly owned station holding a three-letter call assignment (plus FM, TV, CA or LP suffixes, if used).

* * * * * *

(n) LPFM stations with previously assigned call signs with the suffix "LP" may continue to use that suffix. LPFM stations requesting new or modified call signs may optionally request the suffix "LP" or request their current call sign without the "LP" suffix subject to availability.

13. Section 73.3598 is proposed to be modified, as follows:

§73.3598 Period of construction.

(a) Except as provided in the last two sentences of this paragraph, each original construction permit for the construction of a new TV, AM, FM or International Broadcast; low power TV; TV translator; TV booster; LPFM; FM translator; or FM booster station, or to make changes in such existing stations, shall specify a period of three years from the date of issuance of the original construction permit within which construction shall be completed and application for license filed. An eligible entity that acquires an issued and outstanding construction permit for a station in any of the services listed in this paragraph shall have the time remaining on the construction permit or eighteen months from the consummation of the assignment or transfer of control, whichever is longer, within which to complete construction and file an application for license. For purposes of the preceding sentence, an "eligible entity" shall include any entity that qualifies as a small business under the Small Business Administration's size standards for its industry grouping, as set forth in 13 CFR 121 through 201, at the time the transaction is approved by the FCC, and holds

(1) 30 percent or more of the stock or partnership interests and more than 50 percent of the voting power of the corporation or partnership that will hold the construction permit; or

(2) 15 percent or more of the stock or partnership interests and more than 50 percent of the voting power of the corporation or partnership that will hold the construction permit, provided that no other person or entity owns or controls more than 25 percent of the outstanding stock or partnership interests; or

(3) More than 50 percent of the voting power of the corporation that will hold the construction permit if such corporation is a publicly traded company.

* * * * * *

Part 74 of Title 47 of the U.S. Code of Federal Regulations is proposed to be amended to read as follows:

Part 74 – Experimental Radio, Auxiliary, Special Broadcast and other program distributional services.

1. Section 74.1204 is proposed to be modified, as follows:

§74.1201 Definitions.

* * * * * *

(f) FM broadcast booster station. A station in the broadcasting service operated for the sole purpose of retransmitting the signals of an FM radio broadcast station, by amplifying and reradiating such signals, without significantly altering any characteristic of the incoming signal other than its amplitude. Unless specified otherwise, includes LPFM boosters as defined in paragraph (k) and Cross-service boosters as defined in paragraph (l) of this section.

* * * * * *

(k) LPFM booster. An FM broadcast booster station as defined in paragraph (f) of this section that is commonly-owned by an LPFM station for the purpose of retransmitting the signals of the commonly-owned LPFM station.

(l) Cross-service booster. An FM broadcast booster station as defined in paragraph (f) of this section for the purpose of retransmitting a FM translator station engaged in the rebroadcasting of an AM broadcast station and commonly-owned by the licensee of the FM translator station.

2. Section 74,1203 is proposed to modified, as follows:

§74.1203 Interference.

(a) An authorized FM translator station, FM booster station, LPFM booster or Cross-service booster will not be permitted to continue to operate if it causes any actual interference to:

(1) * * *

(2) * * *

(3) The direct reception by the public of the off-the-air signals of any authorized broadcast station including TV Channel 6 stations, Class D (secondary) noncommercial educational FM stations, LPFM stations and previously authorized and operating FM translators and FM booster stations. Interference will be considered to occur whenever reception of a regularly used signal is impaired by the signals radiated by the FM translator or booster station, regardless of the quality of such reception, the strength of the signal so used, or the channel on which the protected signal is transmitted.

(b) If interference cannot be properly eliminated by the application of suitable techniques, operation of the offending FM translator station, FM booster station, LPFM booster or Cross-service booster shall be suspended and shall not be resumed until the interference has been eliminated. Short test transmissions may be made during the period of suspended operation to check the efficacy of remedial measures. If a complainant refuses to permit the FM translator or booster licensee to apply remedial techniques which demonstrably will eliminate the interference without impairment to the original reception,

the licensee of the FM translator or booster station is absolved of further responsibility for that complaint.

(c) An FM booster station, LPFM booster or Cross-service booster will be exempted from the provisions of paragraphs (a) and (b) of this section to the extent that it may cause limited interference to its primary station's signal, provided it does not disrupt the existing service of its primary station or cause such interference within the boundaries of the principal community of its primary station.

(d) * * * * * *

(e) It shall be the responsibility of the licensee of an FM translator station, FM booster station, LPFM booster or Cross-service booster to correct any condition of interference which results from the radiation of radio frequency energy by its equipment on any frequency outside the assigned channel. Upon notice by the Commission to the station licensee that such interference is being caused, the operation of the FM translator or FM booster station shall be suspended within three minutes and shall not be resumed until the interference has been eliminated or it can be demonstrated that the interference is not due to spurious emissions by the FM translator or FM booster station; provided, however, that short test transmissions may be made during the period of suspended operation to check the efficacy of remedial measures.

3. Section 74.1204 is proposed to be retitled and modified, as follows:

§74.1204 Protection of FM broadcast, FM translators and LPFM stations.

(a) An application for an FM translator station, LPFM booster or Cross-service booster will not be accepted for filing if the proposed operation would involve overlap of predicted field contours with any other authorized commercial or noncommercial educational FM broadcast stations, FM translators, and Class D (secondary) noncommercial educational FM stations; or if it would result in new or increased overlap with an LPFM station, as set forth:

(1) * * *

(2) * * *

(3) * * *

(4) LPFM stations (Protected Contour: 1 mV/m):

Frequency separation	Interference contour of proposed LPFM station	Protected contour of commercial Class B station
Cochannel	0.1 mV/m (40 dBu)	1 mV/m (60 dBu)
200 kHz	0.5 mV/m (54 dBu)	1 mV/m (60 dBu)
400 kHz	100 mV/m (100 dBu)	1 mV/m (60 dBu)

(b) * * * * * *

(c) An application for a change (other than a change in channel) in the authorized facilities of an FM translator station, LPFM booster or Cross-service booster will be accepted even though overlap of field strength contours would occur with another station in an area where such overlap does not already exist, if:

(1) * * *

(2) * * *

(3) * * *

(4) * * *

(d) * * * * * *

(e) * * * * * *

(f) An application for an FM translator station, LPFM booster or a Cross-service booster will not be accepted for filing even though the proposed operation would not involve overlap of field strength contours with any other station, as set forth in paragraph (a) of this section, if the predicted 1 mV/m field strength contour of the FM translator station will overlap a populated area already receiving a regularly used, off-the-air signal of any authorized co-channel, first, second or third adjacent channel broadcast station, including Class D (secondary) noncommercial educational FM stations and grant of the authorization will result in interference to the reception of such signal.

(g) An application for an FM translator or an FM booster station that is 53 or 54 channels removed from an FM radio broadcast station will not be accepted for filing if it fails to meet the required separation distances set out in § 73.207 of this chapter. For purposes of determining compliance with § 73.207 of this chapter, translator stations will be treated as Class A stations and booster stations will be treated the same as their FM radio broadcast station equivalents. FM radio broadcast station equivalents will be determined in accordance with §§ 73.210 and 73.211 of this chapter, based on the booster station's ERP and HAAT. Provided, however, that FM translator stations and booster stations operating with 100 watts ERP or less will be treated as class D stations and will not be subject to intermediate frequency separation requirements.

(h) * * * * * *

(i) * * * * * *

(j) * * * * * *

4. Section 74.1205 is proposed to modified, as follows:

§74.1205 Protection of channel 6 TV broadcast stations.

The provisions of this section apply to all applications for construction permits for new or modified facilities for a noncommercial educational FM translator station, LPFM booster or Cross-service booster on Channels 201-220, unless the application is accompanied by a written agreement between the NCE-FM translator applicant and each affected TV Channel 6 broadcast station licensee or permittee concurring with the proposed NCE-FM translator, LPFM booster or Cross-service booster facility.

(a) An application for a construction permit for new or modified facilities for a noncommercial educational FM translator station, LPFM booster or Cross-service booster facility operating on Channels 201-220 must include a showing that demonstrates compliance with paragraph (b), (c) or (d) of this section if it is within the following distances of a TV broadcast station which is authorized to operate on Channel 6.

* * * * * *

(b) *Collocated stations.* An application for a noncommercial educational FM translator station, LPFM booster or Cross-service booster operating on Channels 201-220 and located at 0.4 kilometer (approximately 0.25 mile) or less from a TV Channel 6 station will be accepted if it includes a certification that the applicant has coordinated its antenna with the affected TV station.

(c) *Contour overlap.* Except as provided in paragraph (b) of this section, an application for a noncommercial educational FM translator station, LPFM booster or Cross-service booster operating on Channels 201-220 will not be accepted if the proposed operation would involve overlap of its interference field strength contour with any TV Channel 6 station's Grade B contour, as set forth below.

(1) * * *

(2) The distances to the applicable noncommercial educational FM translator, LPFM booster or Cross-service booster interference contour will be predicted according to the procedures specified in § 74.1204(b) of this part.

(3) The applicable noncommercial educational FM translator, LPFM booster or Cross-service booster interference contours are as follows:

(d) * * * * * *

5. Section 74.1231 is proposed to modified, as follows:

§74.1231 Purpose and permissible service.

* * * * * *

(j) FM broadcast booster stations, LPFM boosters and Cross-service boosters provide a means whereby the licensee of an FM broadcast station, LPFM station or FM translator specifying a primary AM broadcast station may provide service to areas in any region within the primary station's predicted, authorized service contours. An FM broadcast booster station is authorized to retransmit only the signals of its primary station which have been received directly through space and suitably amplified, or received by alternative signal delivery means including, but not limited to, satellite and terrestrial microwave facilities. The FM booster station, LPFM boosters or Cross-service booster shall not retransmit the signals of any other station nor make independent transmissions, except that locally generated signals may be used to excite the booster apparatus for the purpose of conducting tests and measurements essential to the proper installation and maintenance of the apparatus.

6. Section 74.1232 is proposed to modified, as follows:

§74.1232 Eligibility and licensing requirements.

* * * * * *

(f) An FM broadcast booster station, LPFM booster and Cross-service booster will be authorized only to the licensee or permittee of the FM radio broadcast station, LPFM station or FM cross-service translator whose signals the booster station will retransmit, to serve areas within the protected contour of the primary station, subject to Note, § 74.1231(h) of this part.

(g) No numerical limit is placed upon the number of FM booster or Cross-service booster stations which may be licensed to a single licensee. LPFM booster ownership limits are subject to §73.860(b). A separate application is required for each FM booster station, LPFM booster or Cross-service booster. FM broadcast booster stations are not counted as FM broadcast stations for the purposes of § 73.5555 of this chapter concerning multiple ownership.

* * * * * *

7. Section 74.1235 is proposed to modified, as follows:

§74.1235 Power limitations and antenna systems.

* * * * * *

(d) Applications for FM translator stations, LPFM boosters and Cross-service boosters located within 320 km of the Canadian border will not be accepted if they specify more than 50 watts effective radiated power in any direction or have a 34 dBu interference contour, calculated in accordance with § 74.1204 of this part, that exceeds 32 km. FM translator stations, LPFM boosters and Cross-service boosters located within 320 kilometers of the Mexican border must be separated from Mexican allotments and assignments in accordance with § 73.207(b)(3) of this chapter and are limited to a transmitter power output of 10 watts or less. For purposes of compliance with that section, FM translators, LPFM boosters and Cross-service boosters will be considered as Class D FM stations.

(1) Translator stations, LPFM boosters and Cross-service boosters located within 125 kilometers of the Mexican border may operate with an ERP up to 50 watts (0.050 kW) ERP. A booster station, LPFM booster or Cross-service booster may not produce a 34 dBu interfering contour in excess of 32 km from the transmitter site in the direction of the Mexican border, nor may the 60 dBu service contour of the booster station, LPFM booster or Cross-service booster exceed 8.7 km from the transmitter site in the direction of the Mexican border.

(2) Translator stations, LPFM boosters and Cross-service boosters located between 125 kilometers and 320 kilometers from the Mexican border may operate with an ERP in excess of 50 watts, up to the maximum permitted ERP of 250 watts per § 74.1235(b)(2). However, in no event shall the location of the 60 dBu contour lie within 116.3 km of the Mexican border.

(3) Applications for translator or booster stations (including LPFM boosters and Cross-service boosters) within 320 km of the Canadian border may employ an ERP up to a maximum of 250 watts, as specified in § 74.1235(a) and (b). The distance to the 34 dBu interfering contour may not exceed 60 km in any direction.

* * * * * *

8. Section 74.1263 is proposed to modified, as follows:

§74.1263 Time of operation.

* * * * * *

(b) An FM booster or FM translator station rebroadcasting the signal of an AM or FM primary station shall not be permitted to radiate during extended periods when signals of the primary station are not being retransmitted. Notwithstanding the foregoing, FM translators and Cross-service boosters rebroadcasting Class D AM stations may continue to operate during nighttime hours only if the AM station has operated within the last 24 hours.

* * * * * *

9. Section 74.1283 is proposed to modified, as follows:

§74.1283 Station identification.

* * * * * *

(b)(1) The call sign of an FM booster station or LPFM booster will consist of the call sign of the primary station followed by the letters “FM” or “LP” and the number of the booster station being authorized, e.g., WFCCFM-1 or WRECLP-1.

(2) The call sign of an Cross-service booster will consist of the call sign of the primary FM translator and a number of the booster station being authorized, e.g., W245ZZ-1.

* * * * * *

10. Section 74.1290 is proposed to modified, as follows:

§74.1290 FM translator and booster station information available on the Internet.

The Media Bureau's Audio Division provides information on the Internet regarding FM translator and booster stations, rules, and policies at https://www.fcc.gov/media/radio/audio-division.

APPENDIX B

LPFM Channel Availability by ZIP Code

(Data is in separate file attached to this comment pleading.)

READING THE DATA *(Sample shown...)*

ZIPCD	COMMUNITY		Centroid Latitd	Centroid Longitd	Approx. Census	Addl Chan	LP100 Table Avail	LP100 Table 2-Adj	LP100 Table Rv	LP-10 Table Avail	LP-10 Table 2-Adj	LP-10 Table Rv	Nearby FL	Nearby FX	Nearby TV
60436	ROCKDALE	IL	41.509	88.136	23888	0	0	2	0	0	2	0	0	1	1
61101	ROCKFORD	IL	42.292	89.116	23908	5	0	4	0	3	9	0	0	7	1
61102	ROCKFORD	IL	42.255	89.125	19427	6	1	5	0	3	11	0	0	7	1

ZIPCD: 2000 US Census ZIP Code Tabulation Area (ZCTA)
Community: ZCTA community name and state.
Centroid: Coordinates used for search (NAD27).
Approx Census: 2000 census for this ZCTA (population count has no bearing in this report).
Addl Chan: Count of additional channels if LPFM switches to using LP10 charts.
For each table:

Avail: Count of channels available that do not require a second adjacent channel waiver.
2-Adj: Count of channels available that may or may not require a second adjacent channel waiver (subtract 2-Adj from Avail to determine number of additional channels).
Rv: Of channels available (with or without 2nd adj. waiver), count of channels in the reserved band (88.1~91.9 MHz)

Nearby FL: LPFM stations within 6 km of the search site.
Nearby FX: FM translators within 18 km of the search site.
Nearby TV: TV Channel 6 stations that triggered a short-spacing on one or more FM channels.

NOTES ABOUT THIS DATA

- Based on the FCC CDBS data as of end-of-business on June 23, 2017 of engineering records marked in CDBS as "current".
- Channel availability is based solely on distance separation of full-service FM, FM translator, LPFM, TV channel 6 and foreign stations.
- Channel availability is based on the single point searched only and may not reflect availability in other parts of the ZIP code.
- Even if there is an increase in channels if LPFM switches to the LP10 distance separation charts, it does not necessarily mean the channel is available due to inbound interference from a nearby full-service FM or FM translator station.
- Using the contour overlap rules we have proposed in respect to FM translators, LPFM stations or TV channel 6 stations, additional channels may become available.
- Especially for foothill locations, this list does not take into consideration any power reductions as a result of overlap between the LPFM interfering contour and the full-service FM protected service contour.
- Some channels may become unavailable due to the upcoming Auction 99 cross-service FM translator filing window.